BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
JEFF HATCH-MILLER - Chairman
WILLIAM A. MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF THE APPLICATION OF DUNCAN RURAL SERVICES CORPORATION FOR A RATE INCREASE

DOCKET NO. G-02528A-05-0314

NOTICE OF FILING TESTIMONY

The Utilities Division ("Staff") provides this notice that it has filed the Direct Testimony of Daniel Zivan, Prem Bahl and Steven Irvine.

RESPECTFULLY SUBMITTED this 8th day of November 2005.

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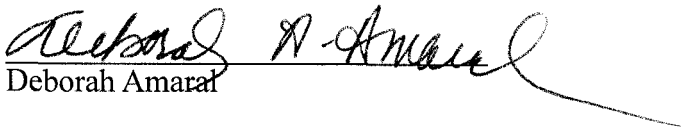

Deborah Amaral

DIRECT

TESTIMONY

OF

DANIEL ZIVAN

PREM BAHL

STEVE IRVINE

DOCKET NO. G-02528A-05-0314

IN THE MATTER OF THE APPLICATION OF DUNCAN RURAL SERV ICES CORPORATION FOR A RATE INCREASE

NOVEMBER 8, 2005

ZIVAN

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
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Commissioner

IN THE MATTER OF THER APPLICATION OF DUNCAN RURAL SERVICES CORPORATION FOR A RATE INCREASE	DOCKET NO. G-02528A-05-0314

DIRECT

TESTIMONY

OF

DANIEL ZIVAN

PUBLIC UTILITIES ANALYST III

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 8, 2005

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EXECUTIVE SUMMARY
DUNCAN RURAL SERVICES CORPORATION
DOCKET NO. G-02528A-05-0314

Duncan Rural Services Corporation ("Duncan Rural") is a non-profit corporation that supplies gas service to approximately 750 customers in Greenlee County, Arizona. Duncan Rural is operated by Duncan Valley Electric Cooperative ("DVEC") through a management contract. DVEC controls Duncan Rural's board of directors. Duncan Rural's current rates were approved by the Commission in Decision No. 64869 (June 5, 2002).

Rate Application:
Duncan Rural proposed a $147,406, or 22.70 percent, revenue increase from $649,377 to $796,783. The proposed revenue increase, as filed, would produce an operating margin of $61,846 for an 8.01 percent rate of return on an original cost rate base of $772,408. The $147,406 proposed revenue increase includes $33,179[1] of margin revenue and $114,227[2] of base cost of gas revenue. Only the $33,179 margin increase is comparable to Staff's recommended revenue increase. Duncan Rural requests a 2.0 times interest earned ratio ("TIER') and a 1.38 debt service coverage ratio ("DSC").

Staff recommends removing purchased gas cost and its recovery from revenue and expenses to recognize them in a fuel adjustor mechanism. Staff further recommends a revenue requirement of $473,218. Staff's proposed revenue would provide a $147,406, or 45.24 percent, increase over adjusted test year margin revenues of $325,812 and an operating margin of $65,665 for an 8.66 percent rate of return on a Staff adjusted original cost rate base of $758,057. Operating revenue of $473,218 would produce a 3.38 TIER and a 1.64 DSC.

Finance Application:
Duncan Rural proposes to convert $268,988 of its $443,584 unauthorized cash advances from DVEC to a 25-year note at a variable interest rate equal to Arizona Electric Power Cooperative Inc.'s ("AEPCO") variable interest rate earned on funds. Staff determined that Duncan Rural used $330,484 of the advances for capital improvements and recommends authorization to convert that amount to a 25-year note on the terms proposed. Staff further recommends discontinuation of unauthorized cash advances from DVEC to Duncan Rural.

Duncan Rural's capital structure consists of 142.07 percent debt and negative 42.07 percent patronage equity. The negative equity exists due to continued net losses experienced by Duncan Rural. Duncan Rural's highly leveraged capital structure has negative consequences in the future.

Staff recommends that Duncan Rural adhere to an equity plan designed to improve its capital structure. The recommended capital plan requires Duncan Rural to make a filing with the Commission for 2005 and each year thereafter detailing its calendar year end equity position. The recommended equity plan requires Duncan Rural to improve its equity position by 5 percent

[1] $147,046 revenue increase - $114,827 base cost of gas revenue = $33,178 margin revenue
[2] 574,136 Test Year therm sales x [($0.56 proposed base cost of gas) - ($0.36 current base cost of gas)]=$114,827

each year. Staff recommends that in the event Duncan Rural does not improve its cumulative equity position by an average of 5 percent (using its December 31, 2005 position as a base) at the end of any calendar year until patronage equity is a minimum of 30 percent of total capital that the Cooperative be required to file a rate application within 180 days of the end calendar year that the 5 percent cumulative average increase in patronage equity is not achieved. However, Duncan Rural may be granted a waiver from filing a rate application if it provides a written explanation as to why it did not achieve its equity goal and it can demonstrate to Staff's satisfaction that it is likely that it will achieve the cumulative equity goal in Staff's recommendation within a reasonable timeframe without any rate adjustment. Such demonstration should be provided within 90 days of the end of the calendar year. In no instance shall Duncan Rural fail to achieve its cumulative equity improvement goal for three consecutive years without filing a rate application. Staff also recommends that the Commission prohibit distribution of patronage dividends until Duncan Rural has achieved a capital structure composed of at least 20 percent patronage equity.

I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Daniel Zivan. I am a Public Utilities Analyst III employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst.

A. I am responsible for the examination and verification of financial and statistical information included in utility rate applications. In addition, I develop revenue requirements, analyze financial information related to financings, sales of assets and other matters. I am also responsible for preparing written reports, testimonies, and schedules that include Staff recommendations to the Commission and testifying at formal hearings on these matters.

Q. Please describe your educational background and professional experience.

A. In 2001, I graduated from Arizona State University, receiving a Bachelor of Science degree in Global Business with a specialization in finance. My course of studies included classes in corporate and international finance, investments, accounting, and economics. In 2005, after three years of working in financial analysis, financial operations and accounting, I accepted employment with the Commission as a Public Utilities Analyst in the Financial and Regulatory Analysis Section. I have attended seminars on rate design, rate making and financial modeling during my employment with the Commission.

Q. What is the scope of your testimony in this case?

A. I present Staff's analysis and recommendations in the areas of rate base, operating income, revenue requirement and capital structure regarding Duncan Rural Services Corporation's

("Duncan Rural" or "Cooperative") application for a permanent rate increase. I also present Staff's recommendations on the Cooperative's application requesting authorization for debt financing and recommend an equity improvement plan. Staff witness Steve Irvine is presenting Staff's recommendations regarding the base cost of gas, fuel adjustor, and rate design. Staff witness Prem Bahl is presenting Staff's analysis and recommendations with regard to the Cost of Service Study.

Q. What is the basis of Staff's recommendations?

A. Staff performed a regulatory audit of Duncan Rural's application and records to determine the Cooperative's rate base, adjusted test year operating results and revenue requirement. The regulatory audit consisted of examining and testing the financial information, accounting records, and other supporting documentation and verifying that the accounting principles applied were in accordance with the Commission adopted Federal Energy Regulatory Commission ("FERC") Uniform System of Accounts ("USOA").

Q. Briefly summarize how your testimony is organized.

A. My testimony is organized in five sections. Section I is this introduction. Section II summarizes a brief history of customer complaints. Section III discusses the rate application including Staff's recommendations for rate base, operating income and revenue requirement. Section IV discusses the Cooperative's unauthorized incurrence of debt. Section V discusses the Cooperative's request to convert accounts payable to Duncan Valley Electric Cooperative ("DVEC") to long-term debt. Section VI discusses the Cooperative's capital structure. Section VII presents Staff's recommendation for an equity improvement plan.

Q. Please review the background of the Cooperative's rate application.

A. Duncan Rural initially filed a rate application on April 19, 2005. Staff filed a letter of deficiency pertaining to that application on May 27, 2005. On June 9, 2005, Duncan Rural filed a new application that corrected the deficiencies in its initial application and requested that the initial application be disregarded. Staff filed a letter finding the second application sufficient on June 22, 2005.

Duncan Rural supplies gas service to approximately 750 customers in Greenlee County, Arizona. DVEC has a contract to manage and operate Duncan Rural. DVEC controls Duncan Rural's board of directors[3] and serves approximately 2,500 electric customers. A majority of Duncan Rural's gas customers are also electric customers of DVEC. Duncan Rural's current rates were approved by the Commission in Decision No. 64869 (June 5, 2002).

Q. What primary reasons did Duncan Rural state for requesting a permanent rate increase?

A. Duncan Rural's application discusses two primary reasons: increased purchased gas costs and a decreasing customer base. Additionally, the application states that Duncan Rural incurred a Test Year operating loss of $46,967 and a total margin loss of $77,970.

Q. What Test Year did Duncan Rural use in this filing?

A. Duncan Rural's rate filing is based on the twelve months ended December 31, 2004 ("Test Year").

[3] According to Note 3 of the Cooperative's 2004 audited financial statements, the Cooperative has three membership classes with voting entitlements as follows: 1 Class A member (DVEC) entitled to 1,000 votes; 685 Class B members entitled to one vote each and 19 Class C members entitled to one vote each.

II. CONSUMER SERVICE

Q. Please provide a brief history of customer complaints received by the Commission regarding Duncan Rural.

A. The Commission's Consumer Service Section received one complaint pertaining to Duncan Rural for the period of September 7, 2002 through September 10, 2005. This complaint has been resolved and closed.

III. RATE APPLICATION

Summary of Proposed Revenues

Q. Please summarize the Cooperative's filing.

A. Duncan Rural proposes total annual operating revenue of $796,783. The Cooperative's proposed revenue, as filed, represents an increase of $147,406, or 22.70 percent, over Test Year revenue of $649,377.

Q. Please summarize Staff's recommended revenue.

A. Staff recommends a margin revenue requirement (excludes recovery of purchased gas) of $473,218. As discussed in the testimony of Steve Irvine, Staff recommends recovering purchase gas cost entirely through an adjustor mechanism. Staff's revenue requirement represents a $147,406, or 45.24 percent, increase over adjusted test year revenue of $325,812.

Q. How does Staff's recommended revenue requirement compare to Duncan Rural's proposed revenue requirement?

A. Staff and Duncan Rural agree that a $147,406 revenue increase is appropriate. The apparent disparity between Staff and the Cooperative regarding the revenue requirement and test year revenues is in form only. The apparent disparity is due to a difference in the

base cost of gas used to calculate revenue. Staff's revenues exclude all revenues collected to recover purchased gas cost, i.e., the base cost of gas is zero, while the Cooperative's revenues reflect recovery of purchased gas cost. This difference is a matter of classification and has no impact on the revenues the Cooperative can ultimately recover. The $147,406 recommended revenue increase represents a 45.24 percent increase over Staff's adjusted test year margin revenue and a 22.70 percent increase over Duncan Rural's test year revenue of $649,377, which includes recovery of gas costs. The 22.70 percent calculation is more representative of the increase to customer bills since customers would continue to pay the cost of purchased gas under either Staff's recommendation or the Cooperative's proposal.

Q. What times interest earned ratio ("TIER") and debt service coverage ("DSC") would result from Staff's recommended revenue?

A. Staff's recommended revenue would provide Duncan Rural with a 3.38 TIER and a 1.64 DSC.

Q. What TIER and DSC would result from Duncan Rural's proposed revenues as filed?

A. Duncan Rural's application shows that its proposed revenue would provide a 2.00 TIER and a 1.38 DSC.

Q. Why do Staff's TIER and DSC differ from Duncan Rural's TIER and DSC?

A. The reasons for the differing TIER and DSC results are: (1) differing amounts of debt recognized; (2) differing recommended operating margins; and (3) differing TIER and DSC calculation methods.

Q. How do Staff and Duncan Rural calculate TIER?

A. Staff calculates TIER by dividing the sum of operating income and income tax expense by interest expense on long term debt. Duncan Rural calculates TIER by dividing the sum of interest expense and net income/loss by interest expense on long term debt.

Q. How do Staff and Duncan Rural calculate DSC?

A. Staff calculates DSC by taking the sum of operating income, depreciation and amortization and income tax expense divided by the sum of interest expense on long term debt and repayment of principle. Duncan Rural calculates DSC by taking the sum of net income/loss, depreciation and interest expense on long term debt divided by the sum of interest expense on long term debt and repayment of principle.

Q. What do the times interest earned and the debt service coverage ratios represent?

A. TIER represents the number of times operating income covers interest expense on long-term debt. A TIER greater than 1.0 means that operating income is greater than interest expense. DSC represents the number of times internally generated cash covers required principal and interest payments on long-term debt. A DSC greater than 1.0 indicates that operating cash flow is sufficient to cover debt obligations.

Q. Does Duncan Rural's lender have debt covenants for TIER and DSC?

A. No. Duncan Rural's lender, who is DVEC, does not have TIER and DSC ratio requirements.

Summary of Staff's Adjustments and Recommendations

Operating

Q. Please summarize the rate base and operating income adjustments addressed in your testimony.

A. My testimony addresses the following issues:

Prepayments – This adjustment decreases rate base by $14,351 to eliminate the Cooperative's selective recognition of prepayments and the exclusion of other cash working capital components.

Revenue Annualization – This adjustment increases revenues by $2,574 to reflect revenues at the Test-Year end customer level.

Base Cost of Gas and Fuel Adjustor – This adjustment decreases operating revenue by a total of $325,142 to remove all revenue that represents recovery of gas costs. Additionally, this adjustment removes $325,260 for purchased gas costs from expenses. The removal of gas costs from expenses and removal of recovery of gas costs from revenue reflects Staff's recommendation to flow all purchased gas expense through the fuel adjustor mechanism.

ACC Assessment – This adjustment removes $997 from revenue and $1,472 from expense included in the Cooperative's application related to the ACC assessment to reflect Staff's recommendation that the ACC Assessment be treated as a pass-through item.

Rate Case Expense – This adjustment decreases operating expenses by $4,851 to recognize a normalized level of rate case expense by distributing the Cooperative's estimated cost over three years.

Income Tax Expense – This adjustment increases test year operating expenses by $7,445 to reflect application of statutory state and federal income tax rates to Staff's calculated taxable income.

Non-Operating

Interest Expense on Long-term Debt – This non-operating income adjustment decreases interest expense on long-term debt by $8,019 to reflect application of Staff's interest rates to Staff recommended level of long-term debt.

Other Recommendations

DVEC Debt – Staff recommends that the Commission order Duncan Rural to refrain from obtaining any new debt from DVEC without obtaining prior authorization from the Commission.

Capital Structure – Staff recommends that the Commission order the Cooperative to follow Staff's recommended schedule to improve its equity position by 5 percent each year until patronage equity equals 30 percent of total capital.

Schedules

Q. Have you prepared any schedules to support Staff's testimony?

A. Yes. I prepared fourteen schedules (DTZ-1 to DTZ-14) to support Staff's revenue requirement analysis.

Rate Base

Fair Value Rate Base

Q. Did the Cooperative prepare a schedule showing the elements of Reconstruction Cost New Rate Base ("RCND")?

A. No. The Cooperative stipulated that the Commission may use its "original cost less depreciation rate base for purposes of determining a return on fair value in this Application."

Rate Base Summary

Q. Please summarize Staff's adjustments to Duncan Rural's rate base shown on Schedules DTZ-3 and DTZ-4.

A. Staff made one adjustment to Duncan Rural's proposed rate base resulting in a net decrease of $14,351 from $772,408 to $758,057. Staff's adjustment is discussed below.

Rate Base Adjustment No. 1 – Working Capital, Prepayments

Q. What is the purpose of recognizing a cash working capital component in the rate base calculation?

A. In general, cash working capital reflects the amount of cash that the utility principals either provide or receive from customers for daily operations. If the principals provide cash the cash working capital allowance is an addition to rate base, and if the cash is received from customers, then cash working capital is treated as a deduction from rate base.

Q. What is the best method to determine a cash working capital allowance?

A. Performing a lead-lag study is the most reliable method for calculating cash working capital. A lead-lag study measures the revenue dollar lag days between the provision of

service and the collection of revenue and the expense dollar lag days between the provision of service and the payment of bills. If the revenue dollar lag days exceed the expense dollar lag days the cash working capital allowance is an increase to rate base, and if the expense dollar lag days exceed the revenue dollar lag days the cash working capital allowance is a deduction from rate base.

Q. Did Duncan Rural perform a lead-lag study?

A. No, it did not.

Q. If the Cooperative had performed a lead-lag study could it have shown that the cash working capital allowance is negative?

A. Yes, it could have. Some of the Cooperative's largest expenses such as interest, property and income taxes are collected from customers prior to the payment due dates. This provides significant support to the possibility that if a lead-lag study had been conducted that the resulting cash working capital allowance would have been a deduction from rate base.

Q. Does Duncan Rural's proposal to include the cost of a prepaid insurance premium in the Working Capital calculation represent an inequitable, selective adjustment to increase rate base?

A. Yes. The Cooperative chose not to conduct a lead-lag study and, accordingly, omitted a major component of cash working capital analysis. A lead-lag study is recognized as the most accurate method to calculate cash working capital. It is inequitable to ignore a major component of the cash working capital analysis and selectively recognize other components.

Q. Is there any significance to the allowance or disallowance of prepayments or any other component to cash working capital to Duncan Rural's revenue requirement?

A. No. The members of the cooperative are also the owners. The members' goal is to obtain the best service at the lowest rate possible. Consequently, the primary revenue requirement considerations are the provision of adequate cash flow to meet payment obligations and maintenance of an appropriate capital structure. Therefore, the Cooperative appropriately chose not to incur the expense of a lead-lag study. However, the inclusion of selective cash working capital components in rate base is inappropriate.

Q. What is the amount and nature of the Prepayment that the Cooperative is proposing to include in rate base?

A. The prepayment is the annual renewal cost of an insurance premium in the amount of $14,351.

Q. What is Staff recommending for Prepayments?

A. Staff recommends removal of $14,351 in Prepayments from Working Capital as shown on Schedules DTZ-4 and DTZ-5.

Operating Income

Operating Income Summary

Q. What are the results of Staff's analysis of Test Year revenues, expenses and operating income?

A. As shown on Schedules DTZ-6 and DTZ-7 Staff's analysis resulted in Test Year revenues of $325,812, expenses of $372,174 and an operating loss of $46,394.

Operating Income Adjustment No. 1 – Revenue Annualization

Q. Did the Cooperative annualize both revenues and expenses?

A. No. The Cooperative annualized salary and wage expense but made no adjustment to annualize revenues.

Q. What is the purpose of a revenue and expense annualization?

A. A revenue and expense annualization is made to achieve matching with the test-year end rate base measurement date.

Q. What customer classes did Staff annualize?

A. Staff annualized only the "250 cfh and Below" customer class. The "Above 250 cfh to 425 cfh" was not annualized due to the relatively large number of seasonal customers within the class. The "Above 425cfh to 1,000 cfh" was not annualized because the lone customer decrease was due to that customer moving to another customer class.

Q. What method did Staff use to annualize revenues for the "250 cfh and Below" customer class?

A. First, Staff calculated the average customer bill for each respective month of the test year. Second, Staff multiplied the average customer bill for each month to the difference between the test-year end customer count and the customer count for each respective month to determine the additional revenue that would have resulted each month had the test-year end customer level existed throughout the year. Finally, Staff totaled the monthly calculations to determine the total annualization adjustment. Staff's annualization adjustment adds $2,574 to Test Year revenue as shown on Schedule DTZ-8.

Q. Is it necessary to annualize purchased gas expense to match the annualization of revenues?

A. Annualization of purchase gas expense is not necessary as long as the base cost of gas is set at $0.00 and purchased gas cost is recovered through the fuel adjustor mechanism as recommended by Staff and discussed in the testimony of Staff witness Steve Irvine.

Q. Is it necessary to annualize any other expenses to match the annualization of revenues?

A. No. In response to a data request, the Cooperative indicated there were no other expenses that varied significantly with usage. Additionally, Staff performed an analysis that calculated the increase and decrease in the number of customers for the past three years and compared those numbers to the increase or decrease in expenses for the same years. That analysis showed that no expense varied significantly with the change in the number of customers.

Q. What is Staff recommending?

A. Staff recommends increasing revenues by $2,574 as shown on Schedules DTZ-7 and DTZ-8.

Operating Income Adjustment No. 2 – Base Cost of Gas and Fuel Adjustor

Q. Explain the purpose of classifying Total Revenue into two components as shown in Schedules DTZ-9.

A. The purpose is to show separately the portion of revenue that represents costs that flow through the fuel adjustor mechanism.

Q. What revenue did Duncan Rural recover through its base cost of gas rate and its fuel adjustor mechanism?

A. The Cooperative collected $206,689 (574,136 therms x $0.36) from its base cost of gas rate and $118,453 from its fuel adjustor rate for a total of $325,142.

Q. What purchased gas expense did the Cooperative incur during the Test Year?

A. Duncan Rural incurred $325,260 in purchased gas expense during the Test Year.

Q. What ratemaking treatment does Staff recommend for the purchased gas expense?

A. Staff recommends removing all purchased gas expense from the margin revenue requirement and providing for the recovery of all purchased gas cost through a fuel adjustor mechanism, as discussed in the testimony of Staff witness Steve Irvine.

Q. What is Staff recommending?

A. Staff recommends removing the entire $325,260 purchased gas cost from operating expenses and the entire $325,142 operating revenue as shown on Schedules DTZ-7 and DTZ-9.

Operating Income Adjustment No. 3 – ACC Gross Revenue Assessment

Q. What is the Cooperative proposing for the ACC assessment?

A. The Cooperative included $997 in operating revenue and $1,472 in operating expense for the ACC assessment.

Q. Does Staff agree that the ACC Assessment be included in operating expenses?

A. No, the assessment should not be included in the cost of service and should be recovered through a bill add-on similar to that recommended for Arizona Electric Power

Cooperative, Inc. ("AEPCO") in Decision No. 58405[4] which states that "*The gross revenue tax will in the future be recovered through a bill add-on.*"

Q. What is Staff recommending?

A. Staff recommends decreasing operating revenue by $997 and operating expense by $1,472 to remove the effects of the ACC assessment as shown on Schedules DTZ-7 and DTZ-10.

Operating Income Adjustment No. 4 – Rate Case Expense

Q. What is the Cooperative proposing for Rate Case Expense?

A. Duncan Rural proposed $16,426 for rate case expense. The Company's proposed amount represents distribution of its estimated total rate case expense of $32,852 over two years.

Q. Does Staff agree with the Cooperative proposed rate case expense?

A. No. The history of Duncan Rural suggests that the Cooperative will not file another rate case within two years. Staff's revenue recommendation in this case is based on the assumption of a three-year interval between this and the Cooperative's next rate filing. Accordingly, Staff recommends a normalized rate case expense of $10,951 that would provide recovery of the Cooperative's estimated amount over three years.

Q. What is Staff recommending?

A. Staff recommends decreasing rate case expense by $4,851 to reflect Staff's normalized amount as shown on Schedules DTZ-7 and DTZ-11.

[4] At page 17, footnote no. 9.

Operating Income Adjustment No. 5 – Test Year Income Tax Expense

Q. What is the Cooperative proposing for test year income tax expense?

A. The Company is proposing test year income tax expense of negative $30,460.

Q. Does Staff agree with the Cooperative's income tax amount?

A. No. Differences between the Staff's and the Cooperative's test year operating revenues and expenses result in different taxable incomes and income taxes. Staff calculated income tax expense by applying the statutory State and Federal income tax rates to its taxable income as shown in Schedule DTZ-2.

Q. What is Staff recommending?

A. Staff recommends increasing test year income tax expense by $7,445 to negative $23,015 as shown on Schedule DTZ-7 and DTZ-12.

Income Adjustment No. 6 (Non-Operating) – Interest Expense on Long-term Debt

Q. What is the Cooperative proposing for Interest Expense on Long-term Debt?

A. Duncan Rural is proposing $31,112 for Interest Expense on Long-term Debt as shown on Schedule DTZ-13. The Cooperative's proposed interest expense is composed of $14,973 for existing debt and a $16,139 pro forma adjustment to reflect its proposed conversion of accounts payable to long-term as discussed below. Duncan Rural proposed a loan amount of $268,988 and used an interest rate of 6 percent to calculate interest expense on the proposed debt ($268,988 X 6% = $16,139).

Q. Did Staff make an independent assessment of the Cooperative's Interest Expense on Long-term Debt?

A. Yes. Staff calculated $23,093 as the Cooperative's interest expense on long-term debt. Staff's calculation includes $14,087 for existing debt and a $9,006 pro forma allowance to reflect Staff's recommendation to authorize a $330,484 conversion of accounts payable to long term debt.

Q. **How did Staff calculate Duncan Rural's actual and pro forma interest expense?**

A. Staff calculated interest expense on existing loans by applying the current[5] 2.725 percent rate to the test-year end balance of Duncan Rural's three existing long-term debt notes. Staff calculated a pro forma annual interest expense related to the recommended $330,484 conversion of accounts payable to long-term debt by applying 2.725 percent to that amount. (Refer to Schedule DTZ-13.)

Q. What adjustment did Staff make to Interest Expense on Long-term Debt?

A. Staff decreased Interest Expense on Long-term Debt by $8,019 as shown on Schedules DTZ-7 and DTZ-13.

IV. COMPLIANCE

Short-term Debt

Q. What does Arizona Revised Statute ("ARS") §40-302.D state concerning the maximum amount of short-term debt that a regulated utility can borrow without prior Commission approval?

A. It states:

> *A public service corporation may issue notes, not exceeding seven percent of total capitalization if operating revenues exceed two hundred fifty*

[5] September 2, 2005

thousand dollars, for proper purposes and not in violation of law payable at periods of not more than twelve months after date of issuance, without consent of the commission, but no such note shall, wholly or in part, be refunded by any issue of stocks or stock certificates, bonds, notes or any other evidence of indebtedness without consent of the commission.

Q. Is Duncan Rural required to obtain Commission authorization to issue notes for the amount of short-term debt it has accepted from DVEC?

A. Yes. Table 1 shows Duncan Rural's total capitalization, seven percent of total capitalization, cash advances (classified by Duncan Rural as accounts payable) from DVEC and the excess of accounts payable over seven percent of total capital for the years ended December 31, 2002, 2003, and 2004.

Table 1

	2002	2003	2004
Total Capital[6]	$528,653	$463,828	$368,884
Seven Percent of Total Capital	$37,006	$32,468	$25,822
Accounts Payable (DVEC)	$174,629	$311,718	$443,584
Excess	$137,623	$279,250	$417,762

Although Duncan Rural has not issued any "notes" because its parent has not required formal documentation of the borrowed funds, the substantive effect of the Cooperative's actions is as if it had issued notes without authorization.

[6] Obtained from Duncan Rural's R.U.S. form 7

Q. Has Duncan Rural obtained significant debt from DVEC in the past without obtaining Commission authorization?

A. Yes. Duncan Rural requested, and was approved for, similar financing authorization in its prior rate case (Decision No. 64869, dated June 5, 2002). In that case Duncan Rural requested authorization to convert $400,000 of accounts payable due to DVEC into long term debt. The application in that case stated that DVEC had advanced funds to Duncan Rural over the previous six years for improvements to the gas distribution system and working capital. Duncan Rural did not seek Commission approval prior to obtaining those advances.

Q. What is Staff recommending?

A. Staff recommends that the Commission order Duncan Rural to refrain from obtaining any new debt from DVEC without obtaining prior authorization from the Commission.

V. FINANCING APPLICATION

Q. Please provide a brief background for the financing application?

A. Duncan Rural filed a financing application (Docket No. G-02528A-03-0205) on April 4, 2003, requesting authorization to incur $400,000 of long-term debt to repay DVEC for advances intended to pay for plant improvements and to provide working capital for operations. Immediately after the application was filed Duncan Rural called the Chief of the Financial and Regulatory Analysis section at the Commission and requested that Staff not process the application until Duncan Rural filed a permanent rate increase application. Duncan Rural made this request as its existing rates were not sufficient to meet the debt service requirements on the proposed debt. Duncan Rural requested consolidation of the financing application and its current rate application as part of its current rate proceeding.

Duncan Rural also changed the amount of debt requested from $400,000 to $268,988 in order to not have total debt exceed its rate base.

Q. What is the Cooperative requesting in its financing application?

A. Duncan Rural is requesting that the Commission approve as long-term debt $268,988 of the $443,584 of cash advanced to or on its behalf by DVEC over approximately the past four years.

Q. How are the advanced funds recorded on Duncan Rural's books?

A. The Cooperative has recorded these obligations as accounts payable.

Q. How has Duncan Rural used the advanced funds?

A. Duncan Rural states in its application that funds were advanced by DVEC in order to allow it to pay operating expenses and to fund plant additions. The proposed refinancing would formalize the past due accounts payable by converting $268,988 of accounts payable owed to DVEC to long-term debt owed to DVEC.

Q. What were the accounts payable balances that Duncan Rural owed to DVEC ("DVEC Accounts Payable") for the years 2002, 2003, and 2004?

A. The DVEC Accounts Payable balances for the years ended December 31, 2002, 2003, and 2004, were $174,629, $311,718, and $443,584, respectively. Duncan Rural's net losses the years 2002, 2003 and 2004 in the amounts of $22,423, $18,859 and $49,639, respectively, provided no opportunity to it to repay the cash advances from DVEC causing the outstanding balance to grow.

Q. What opportunity has been afforded Duncan Rural by accepting cash advances from DVEC?

A. The cash advances have provided working capital necessary for Duncan Rural to meet its other financial obligations while allowing the Cooperative to postpone or circumvent regulatory filings for rates and financing despite continuing losses. Duncan Rural has indulged in this convenience for at least 10 years.

Q. What have been the changes in Duncan Rural's accounts payable and long-term debt balances since 2002?

A. The changes are shown in Table 2.

Table 2

Year	Accounts Payable Beginning Balance	Increase or Decrease	Accounts Payable Ending Balance	Long-term Debt Ending Balance
2001	$445,061	$35,724	$480,785	$218,148
2002	$480,785	($306,156)	$174,629	$572,829
2003	$174,629	$137,089	$311,718	$515,563
2004	$311,718	$131,866	$443,584	$472,858

Q. What caused the accounts payable balance to decrease in 2002?

A. In Decision No. 64869 the Commission authorized the Cooperative to convert $400,000 of accounts payable due to DVEC to long term debt. Thus, the $306,156 reduction in the accounts payable balance resulted from a $400,000 conversion to long-term debt and incremental accounts payable of $93,844. Making allowance for the conversion of accounts payable to long-term debt, Table 2 shows that the Cooperative's accounts payable obligations have grown each year.

Q. Did the Commission authorize rates in DVEC's previous rate case that provided a positive operating margin?

A. No. In Decision No. 67433, the Commission authorized rates to provide an operating loss for DVEC. Operating losses wouldn't likely generate sufficient cash flow from operations for DVEC to advance cash to Duncan Rural.

Q. What is the source of the cash that DVEC uses to lend to Duncan Rural?

A. DVEC received $1.3 million[7] in cash from a Phelps Dodge contract termination.

Q. For what purpose was the $1.3 million originally intended?

A. The $1.3 million was originally intended to subsidize DVEC operations and allow DVEC to gradually increase rates until such time as DVEC could break-even.[8] It mitigates the rate shock that DVEC customers would have experienced in order to recover from the effect of the Phelps Dodge contract termination.

Q. What is the implication for DVEC and its customers from the cash advanced to Duncan Rural?

A. DVEC has less immediate cash for its own operating requirements. In the event a portion of the advances is not repaid, DVEC's customers would be harmed. Delays in repayment could accelerate and increase the magnitude of DVEC rate adjustments.

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[7] According to Decision No. 67433 (page 3, paragraph 10), "Approximately 97 percent of DVEC 1997 revenues came from one large industrial customer, Phelps Dodge Corporation ("Phelps Dodge"). In 1993, Phelps Dodge notified DVEC that it was terminating its power supply contract as of November 1998. Phelps Dodge agreed to pay DVEC $1.3 million as a result of terminating the contract . . . With the loss of the Phelps Dodge contract, DVEC no longer had sufficient revenues to cover its operating expenses and experienced negative margins."

[8] Decision No. 67433, page 4, beginning at line 12

Q. Should the practice of DVEC lending to Duncan Rural through the Accounts Payable process continue?

A. No. Duncan Rural has had a chronic and unhealthy financial dependence on DVEC to pay a substantial portion of its operating expenses. This dependence has resulted in Duncan Rural not taking prompt action to apply for necessary rate increases when it experienced cash flow problems. It has also led to a "snow balling" effect in which the accounts payable balance increased by $280,783 in approximately two years (i.e., from $174,629 at January 1, 2003 to $455,352 at February 28, 2005).

Q. How much of the $443,584 test-year end accounts payable balance did Duncan Rural invest in plant?

A. Staff's audit revealed that Duncan Rural used $330,484 of cash advances for plant improvements.

Q Does the amount of cash advances used for capital improvements affect the amount that should be considered for conversion to long-term debt?

A. Yes. Since capital improvements will continue to provide benefits to Duncan Rural's ratepayers, advances used for capital improvement should be eligible for consideration for conversion.

Q. How does the amount of cash advances used for capital improvements compare to the amount of cash advances the Cooperative requests for authorization to convert to long term debt?

A. The cash advances used for capital improvements exceeds the requested debt authorization by $61,496 ($330,484 - $268,988).

Q. Is Staff recommending conversion of the entire $330,484 of cash advances that Duncan Rural used for capital improvements to long-term debt?

A. Yes. Staff recommends authorization for Duncan Rural to convert $330,484 of obligations incurred as cash advances from DVEC to long-term debt.

Q. What are the proposed terms of the loan?

A. The proposed loan from DVEC would be amortized over a period of 25 years and would have a variable interest rate equal to AEPCO's variable interest rate earned on funds with repayments over 25 years.

Q. What is the remaining accounts payable balance after conversion of $330,484 to long-term debt?

A. The remaining balance is $124,868 ($455,352 - $330,484).

Q. Is it appropriate to convert amounts borrowed to cover operating expenses to long-term debt?

A. No. When operating expenses are converted into long-term debt a cost shift occurs between periods resulting in customers in later periods paying for the benefits received by customers in an earlier period.

Q. How does Duncan Rural propose to repay the balance of the DVEC accounts payable?

A. The Cooperative proposes to pay the balance when funds are available or to convert the balance into long-term debt.[9]

[9] Direct Testimony of John V. Wallace, page 18, beginning at line 8.

Summary of Staff's Financing Application Recommendations

Q. Please provide a summary of Staff's recommendations regarding Duncan Rural's request to convert $268,988 of cash advances from DVEC to long-term Debt.

A. Staff recommends authorizing Duncan Rural to convert $330,484 of obligations incurred as cash advances from DVEC to a 25-year note payable at a variable interest rate equal to AEPCO's variable interest rate earned on funds.

VI. CAPITAL STRUCTURE

Q. What was Duncan Rural's actual Test Year-end capital structure?

A. Duncan Rural's actual Test Year-end capital structure consisted of 142.07 percent debt and negative 42.07 percent patronage equity as shown on the Cooperative's Schedule D-1.

Q. How does Duncan Rural's capital structure compare to other cooperatives' capital structures?

A. Duncan Rural's capital structure is more leveraged than any of the cooperatives in Staff's sample. None of the sample cooperatives have a negative equity position. Schedule DTZ-14 presents a sample of cooperatives' capital structures at December 31, 2004. The average capital structure of the cooperatives is composed of 68.2 percent debt and 31.8 percent patronage equity as opposed to the Cooperative's capital structure composed of 142.07 percent debt and a negative 42.07 percent patronage equity.

Q. Is Staff concerned with Duncan Rural's actual Test Year-end capital structure?

A. Yes. Duncan Rural's capital structure is highly leveraged as it has remained for several years. The Cooperative's capital structure: (1) restricts its ability to obtain additional capital, (2) may result in less favorable terms for future financings and (3) places upward pressure on rates to cover debt service obligations.

Q. Has the Commission shown concern with highly leveraged cooperatives?

A. Yes. The Commission ordered AEPCO (Decision No. 64227, dated November 29, 2001) and Southwest Transmission Cooperative ("SWTCO") (Decision No. 64991, dated June 26, 2002) to establish long-range goals to improve their patronage equity positions. In addition, the Commission ordered Trico Electric Cooperative, Inc. ("Trico") to file a capital improvement plan with the Commission (Decision No. 67412, dated November 2, 2004). As discussed previously, highly leveraged capital structures present potentially negative consequences.

VII. EQUITY IMPROVEMENT PLAN

Q. What approach does Staff recommend to improve Duncan Rural's capital structure?

A. Staff recommends that Duncan Rural develop a capital plan designed to improve its capital structure to at least 30 percent equity within a reasonable time frame. Staff recommends that Duncan Rural be ordered to file a schedule detailing its current capital structure within 90 days of the end of the calendar year, starting with 2005, for each year until its next rate case filing. Staff recommends that in the event Duncan Rural does not improve its equity position by a cumulative average of 5 percent (using its December 31, 2005 position as a base) at the end of any calendar year until patronage equity is a minimum of 30 percent of total capital, that the Cooperative be required to file a rate application within 180 days of the end of the calendar year that the 5 percent cumulative average increase in patronage equity is not achieved. However, Duncan Rural may be granted a waiver from filing a rate application if it provides a written explanation as to why it did not achieve its equity goal and it can demonstrate to Staff's satisfaction that it is likely that it will achieve the cumulative equity goal in Staff's recommendation within a reasonable timeframe without any rate adjustment. Such demonstration should be provided within 90 days of the end of the calendar year. In no instance shall Duncan

Rural fail to achieve its cumulative equity improvement goal for three consecutive years without filing a rate application. Staff also recommends that the Commission prohibit distribution of patronage dividends until Duncan Rural has achieved a capital structure composed of at least 20 percent patronage equity.

Q. Is Staff's position that an optimal capital structure for the Applicant is composed of 70 percent debt and 30 percent equity?

A. No. Staff considers that a capital structure for the Applicant composed of 30 percent equity and 70 percent debt is not optimal, but a minimum capital structure that Duncan Rural should target to achieve.

Q. Is Staff's recommended revenue sufficient to improve Duncan Rural's equity position in a reasonable timeframe?

A. Yes, Staff's recommended revenue provides Duncan Rural with a positive operating margin that supports the recommended growth in patronage equity.

Q. Please summarize Staff's recommendations concerning Duncan Rural's equity position.

A. Staff recommends that the Commission order Duncan Rural to follow Staff's equity recommendation. Staff also recommends that the Commission order the Applicant to file a rate application within 180 days of the end of any calendar year that Duncan Rural is not able to meet the cumulative patronage equity level specified in Staff's proposed plan. However, Duncan Rural may be granted a waiver from filing a rate application if it can demonstrate to Staff's satisfaction that it is likely that the Applicant will achieve the cumulative increase in patronage equity level in Staff's plan within a reasonable timeframe without any rate adjustment. Such demonstration should be provided within 90

days of the end of the calendar year. In no instance shall the Applicant fail to achieve Staff's equity plan for three consecutive years without filing a rate application.

Staff also recommends that the Commission restrict the distribution of future patronage dividends by Duncan Rural until it has achieved a capital structure composed of at least 20 percent patronage equity.

Q. Does this conclude your direct testimony?

A. Yes, it does.

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Schedule DTZ-1

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION		[A] COMPANY ORIGINAL COST		[B] STAFF ORIGINAL COST
1	Adjusted Operating Income (Loss)	$	(46,968)	$	(46,394)
2	Depreciation and Amortization	$	49,645	$	49,645
3	Long-term Debt Interest Expense	$	31,112	$	23,093
4	Income Tax Expense		N/A	$	12,331
5	Principal Repayment	$	45,303	$	54,661
6	Recommended Increase in Operating Margin	$	108,814	$	112,060
7	Gross Revenue Conversion Factor		1.3514		1.3154
8a	**Recommended Increase in Operating Revenue**	$	147,406	**$**	**147,406**
8b	**Percent Increase (Line 8a / Line 9) - Per Staff**		N/A		**22.70%**
8c	Percent Increase (Line 8a / Line 9) - Per Coop		22.70%		N/A
9	Adjusted Test Year Operating Revenue	$	649,377	$	325,812
10	**Recommended *Annual Operating* Revenue**	$	796,783	**$**	**473,219**
11a	**Recommended Operating Margin**	$	61,846	**$**	**65,665**
11b	Recommended Net Margin	$	30,845	$	42,682
12a	**Recommended Operating TIER (L11a+L4)/L3 - Per Staff**		N/A		**3.38**
12b	Recommended Net TIER Per Coop		2.00		N/A
13a	**Recommended DSC (L11a+L2+L4)/(L3+L5) - Per Staff**		N/A		**1.64**
13b	Recommended DSC Per Coop		1.38		N/A
14	**Adjusted Rate Base**	$	772,408	**$**	**758,057**
15	Rate of Return (L10 / L14)		8.01%		8.66%

References:
Column [A]: Company Schedules A-1, C-1, C-3
Column [B]: Staff Schedules DTZ-2, DTZ-8

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Schedule DTZ-2

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	1.000000			
2	Uncollectible Factor	0.000000			
3	Revenues	1.000000			
4	Less: Combined Federal and State Tax Rate (Line 12)	0.239787			
5	Subtotal (L3 - L4)	0.7602			
6	**Revenue Conversion Factor (L1 / L5)**	**1.31542**			
	Calculation of Effective Tax Rate:				
7	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
8	Arizona State Income Tax Rate	6.9680%			
9	Federal Taxable Income (L7 - L8)	93.0320%			
10	Applicable Federal Income Tax Rate (Line 34)	18.2848%			
11	Effective Federal Income Tax Rate (L9 x L10)	17.0107%			
12	Combined Federal and State Income Tax Rate (L8 +L11)	23.9787%			
13	Required Operating Income (Schedule DTZ-1, Line 5)	$ 65,665			
14	AdjustedTest Year Operating Income (Loss) (Schedule DTZ-10, Line 16)	$ (46,394)			
15	Required Increase in Operating Income (L13 - L14)		$ 112,060		
16	Income Taxes on Recommended Revenue (Col. (D), L33)	$ 12,331			
17	Income Taxes on Test Year Revenue (Col. (B), L33)	$ (23,015)			
18	Required Increase in Revenue to Provide for Income Taxes (L16 -L17)		$ 35,346		
19	Total Required Increase in Revenue (L15 + L18)		$ 147,406		
	Calculation of Income Tax:	Test Year		Staff Recommended	
20	Revenue (Schedule DTZ-9, Columns C and E)	$ 325,812	$ -	$ 473,218	
21	Less: Operating Expenses Excluding Income Taxes	$ 395,222		$ 395,222	
22	Less: Synchronized Interest (L37)	$ 20,657		$ 20,657	
23	Arizona Taxable Income (L20 - L21 - L22)	$ (90,066)		$ 57,340	
24	Arizona State Income Tax Rate	6.968%		6.968%	
25	Arizona Income Tax (L23 x L24)		$ (6,276)		$ 3,995
26	Federal Taxable Income (L23 - L25)	$ (83,791)		$ 53,344	
27	Federal Tax on First Income Bracket ($1 - $50,000) @ 15%	$ (7,500)		$ 7,500	
28	Federal Tax on Second Income Bracket ($51,001 - $75,000) @ 25%	$ (6,250)		$ 836	
29	Federal Tax on Third Income Bracket ($75,001 - $100,000) @ 34%	$ (2,989)		$ -	
30	Federal Tax on Fourth Income Bracket ($100,001 - $335,000) @ 39%	$ -		$ -	
31	Federal Tax on Fifth Income Bracket ($335,001 - $10,000,000) @ 34%	$ -		$ -	
32	Total Federal Income Tax		$ (16,739)		$ 8,336
33	Combined Federal and State Income Tax (L25 + L32)		$ (23,015)		$ 12,331
34	Applicable Federal Income Tax Rate [Col. (D), L32 - Col. (B), L32] / [Col. (C), L26 - Col. (A), L26]				18.2848%
	Calculation of Interest Synchronization:				
35	Rate Base (Schedule DTZ-3, Col. (C), Line 13	$ 758,057			
36	Weighted Average Cost of Debt	2.73%			
37	Synchronized Interest (L35 x L37)	$ 20,657			

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Schedule DTZ-3

RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 1,342,397	$ -	$ 1,342,397
2	Less: Acc Depreciation & Amortization	(572,264)	-	(572,264)
3	Net Plant in Service	$ 770,133	$ -	$ 770,133
	LESS:			
4	Advances in Aid of Construction (AIAC)	$ -	$ -	$ -
5	Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -
6	Less: Accumulated Amortization	-	-	-
7	Net CIAC	-	-	-
8	Deferred Taxes	$ 19,554	$ -	$ 19,554
9	Customer Deposits	$ 20,064	$ -	$ 20,064
	ADD:			
10	Cash Working Capital	$ -	$ -	$ -
11	Materials and Supplies	$ 27,542	$ -	$ 27,542
12	Prepayments	$ 14,351	$ (14,351)	$ -
13	**Total Rate Base**	$ 772,408	$ (14,351)	$ 758,057

References:
Column [A], Company Schedule B-1, Page 1
Column [B]: Schedule DTZ-4
Column [C]: Column [A] + Column [B]

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Schedule DTZ-4

SUMMARY OF RATE BASE ADJUSTMENTS

LINE NO.	DESCRIPTION	[A] COOPERATIVE AS FILED	[B] PREPAYMENTS ADJ No. 1	[C] STAFF ADJUSTED
	PLANT IN SERVICE:			
1	Intangible Plant	$ -	$ -	$ -
2	Land & Land Rights	-	-	-
3	Mains	725,872	-	725,872
4	Mains - Anodes	143,207	-	143,207
5	City Gates	27,130	-	27,130
6	Services	191,962	-	191,962
7	Meters, Regulators & Install	209,535	-	209,535
8	Land & Land Rights	-	-	-
9	Structures & Improvements	-	-	-
10	Office Furniture & Improvements	2,000	-	2,000
11	Transportation Equipment	-	-	-
12	Stores Equipment	1,413	-	1,413
13	Tools & Shop Equipment	22,553	-	22,553
14	Laboratory Equipment	13,369	-	13,369
15	Power Operated Equipment	1,116	-	1,116
16	Communication Equipment	788	-	788
17	Miscellaneous Equipment	3,452	-	3,452
18	Total Plant in Service	$ 1,342,397	$ -	$ 1,342,397
19	Less: Accumulated Depreciation	$ (572,264)	-	$ (572,264)
20	Less: Accumulated Amortization	-	-	-
21	Total Accumulated Depreciation & Amortization	$ (572,264)	$ -	$ (572,264)
22	Net Plant in Service	$ 770,133	$ -	$ 770,133
	LESS:			
23	Advances in Aid of Construction (AIAC)	$ -	$ -	$ -
24	Contributions in Aid of Construction (CIAC)	-	-	-
25	Less: Accumulated Amortization	-	-	-
26	Net CIAC	$ -	$ -	$ -
27	Deferred Taxes	$ 19,554	$ -	$ 19,554
28	Customer Deposits	$ 20,064		$ 20,064
	ADD:			
29	Construction Work in Progress	$ -	-	$ -
30	Materials and Supplies	27,542	-	27,542
31	Prepayments	14,351	(14,351)	-
32	**Total Rate Base**	$ 772,408	$ (14,351)	$ 758,057

ADJ No.		References
1	Prepayments	Schedule DTZ-5

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Schedule DTZ-5

RATE BASE ADJUSTMENT NO. 2 - WORKING CAPITAL, PREPAYMENTS

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	Cash Working Capital	$ -	$ -	$ -
2	Materials and Supplies	$ 27,542	$ -	$ 27,542
3	Prepayments	$ 14,351	$ (14,351)	$ -
4	**Total Working Capital**	**$ 41,893**	**$ (14,351)**	**$ 27,542**

5 References:
6 Column A: Cooperative Schedule B-1, Page 1
7 Column B: Testimony, DTZ, Schedule DTZ-3
8 Column C: Column [A] + Column [B]

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Schedule DTZ-6

OPERATING INCOME - TEST YEAR AND STAFF RECOMMENDED

Line No.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	***REVENUES:***					
2	Sales Revenue of Gas - Base Cost of Gas	$ 206,689	$ (206,689)	$ -	$ -	$ -
3	Sales Revenue of Gas - Fuel Adjustor	$ 118,453	$ (118,453)	$ -	$ -	$ -
4	Sales Revenue of Gas - Non Base Cost of Gas	$ 319,025	$ 1,577	$ 320,602	$ 147,406	$ 468,008
5	Other Operating Revenue	$ 5,210	$ -	$ 5,210	$ -	$ 5,210
6	**Total Revenues**	$ 649,377	$ (323,565)	$ 325,812	$ 147,406	$ 473,218
7	***EXPENSES:***					
8	Gas Purchases	$ 325,260	$ (325,260)	$ -	$ -	$ -
9	***Distribution Expense - Operations***					
10	Supervision	$ 950	$ -	$ 950	$ -	$ 950
11	Mains & Services	$ 110,026	$ -	$ 110,026	$ -	$ 110,026
12	Measuring & Regulation Stations	$ 13,753	$ -	$ 13,753	$ -	$ 13,753
13	Meters & House Regulators	$ 20,214	$ -	$ 20,214	$ -	$ 20,214
14	Other Expenses	$ 3,116	$ -	$ 3,116	$ -	$ 3,116
15	Rents	$ 6,039	$ -	$ 6,039	$ -	$ 6,039
16	**Total Distribution Expense-Operations**	$ 154,098	$ -	$ 154,098	$ -	$ 154,098
17	***Distribution Expense - Maintenance***					
18	Maintenance-Supervision	$ -	$ -	$ -	$ -	$ -
19	Maintenance-Mains & Services	$ 46,098	$ -	$ 46,098	$ -	$ 46,098
20	Maintenance-Measuring & Regulation Stations	$ -	$ -	$ -	$ -	$ -
21	Maintenance-Services	$ -	$ -	$ -	$ -	$ -
22	Maintenance-Meters & House Regulators	$ 8,726	$ -	$ 8,726	$ -	$ 8,726
23	Maintenance-Other Equipment	$ -	$ -	$ -	$ -	$ -
24	**Total Distribution Expense-Maintenance**	$ 54,824	$ -	$ 54,824	$ -	$ 54,824
25	***Consumer Accounts Expense***					
26	Meter Reading Expense	$ 25,048	$ -	$ 25,048	$ -	$ 25,048
27	Consumer Expense	$ 30,523	$ -	$ 30,523	$ -	$ 30,523
28	Reserve for Uncollectible Accounts	$ 1,500	$ -	$ 1,500	$ -	$ 1,500
29	Information & Instruction ads	$ 3,058	$ -	$ 3,058	$ -	$ 3,058
30	***Total Consumer Accounts Expense***	$ 60,129	$ -	$ 60,129	$ -	$ 60,129
31	***Administrative and General Expense***					
32	Salaries	$ 8,491	$ -	$ 8,491	$ -	$ 8,491
33	Office Supplies and Expenses	$ 3,606	$ -	$ 3,606	$ -	$ 3,606
34	Outside Services Employed	$ 11,826	$ -	$ 11,826	$ -	$ 11,826
35	Rate Case	$ -	$ -	$ -	$ -	$ -
36	Property Insurance	$ -	$ -	$ -	$ -	$ -
37	Injuries and Damage Ins.	$ 17,568	$ -	$ 17,568	$ -	$ 17,568
38	Regulatory Commission Expense	$ 15,802	$ (6,323)	$ 9,479	$ -	$ 9,479
39	Miscellaneous General	$ 5,550	$ -	$ 5,550	$ -	$ 5,550
40	**Total Administrative and General Expense**	$ 62,843	$ (6,323)	$ 56,520	$ -	$ 56,520
41	Interest Expense - Customer Deposits	$ 367	$ -	$ 367	$ -	$ 367
42	Depreciation and Amortization Expense	$ 49,645	$ -	$ 49,645	$ -	$ 49,645
43	Tax Expense - Property	$ 19,639	$ -	$ 19,639	$ -	$ 19,639
44	Tax Expense - Income Taxes	$ (30,460)	$ 7,445	$ (23,015)	$ 35,346	$ 12,331
45	**Total Operating Expenses**	$ 696,345	$ (324,138)	$ 372,207	$ 35,346	$ 407,553
46	**Operating Margin Before Interest on L.T.- Debt**	$ (46,968)	$ 574	$ (46,394)	$ 112,060	$ 65,665
47	**INTEREST ON LONG-TERM DEBT & OTHER DEDUCTIONS**	$ 31,112	$ (8,019)	$ 23,093	$ -	$ 23,093
48	**MARGINS (LOSS) AFTER INTEREST EXPENSE**	$ (78,080)	$ 8,593	$ (69,487)	$ 112,060	$ 42,572
49	**NON-OPERATING MARGINS**	$ 110	$ -	$ 110	$ -	$ 110
50	**NET MARGINS (LOSS)**	$ (77,970)	$ 8,593	$ (69,377)	$ 112,060	$ 42,682

References:
Column (A): Cooperative Schedule C-1, Pages 1 and 2
Column (B): Schedule DTZ-8
Column (C): Column (A) + Column (B)
Column (D): Schedules DTZ-1
Column (E): Column (C) + Column (D)

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Schedule DTZ-7

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1 Revenue Annualization Ref: Sch DTZ-9	[C] ADJ #2 Base Cost of Gas and Fuel Adjustor Ref: Sch DTZ-10	[D] ADJ #3 ACC Assessment Charge Ref: Sch DTZ-11	[E] ADJ #4 Rate Case Expense Ref: Sch DTZ-12	[F] ADJ #5 Income Tax Expense Ref: Sch DTZ-13	[G] ADJ #6 Interest Expense on Long Term Debt Ref: Sch DTZ-14	[H] STAFF ADJUSTED
	REVENUES:								
1	Sales Revenue of Gas - Base Cost of Gas	$ 206,689	$ -	$ (206,689)	$ -	$ -	$ -	$ -	$ -
2	Sales Revenue of Gas - Fuel Adjustor	118,453	-	(118,453)	-	-	-	-	-
3	Sales Revenue of Gas - Margin (Non-gas)	319,025	2,574	-	(997)	-	-	-	320,602
4	Other Operating Revenue	5,210	-	-	-	-	-	-	5,210
5	**Total Revenues**	$ 649,377	$ 2,574	$ (325,142)	$ (997)	$ -	$ -	$ -	$ 325,812
6	***OPERATING EXPENSES:***								
7	Gas Purchases	$ 325,260	$ -	$ (325,260)	$ -	$ -	$ -	$ -	$ -
8	**Distribution Expense - Operations**								
9	Supervision	950	-	-	-	-	-	-	950
10	Mains & Services	110,026	-	-	-	-	-	-	110,026
11	Measuring & Regulation Stations	13,753	-	-	-		-	-	13,753
12	Meters & House Regulators	20,214	-	-	-	-	-	-	20,214
13	Other Expenses	3,116	-	-	-	-	-	-	3,116
14	*Rents*	6,039	-	-	-	-	-	-	6,039
15	**Distribution Expense - Operations**	154,098	-	-	-	-	-	-	154,098
16	**Distribution Expense - Maintenance**								-
17	Supervision	-	-	-	-	-	-	-	-
18	Mains & Services	46,098	-	-	-	-	-	-	46,098
19	Measuring & Regulation Stations	-	-	-	-	-	-	-	-
20	Services	-	-	-	-	-	-	-	-
21	Meters & House Regulators	8,726	-	-	-	-	-	-	8,726
22	Other Equipment	-	-	-	-	-	-	-	-
23	**Distribution Expense - Maintenance**	54,824	-	-	-	-	-	-	54,824
24	**Consumer Accounts Expense**								-
25	Meter Reading Expense	25,048	-	-	-	-	-	-	25,048
26	Consumer Expense	30,523	-	-	-	-	-	-	30,523
27	Reserve for Uncollectible Accounts	1,500	-	-	-	-	-	-	1,500
28	Information & Instruction ads	3,058	-	-	-	-	-	-	3,058
29	**Consumer Accounts Expense**	60,129	-	-	-	-	-	-	60,129
30	**Administrative and General Expense**								-
31	Salaries	8,491	-	-	-	-	-	-	8,491
32	Office Supplies and Expenses	3,606	-	-	-	-	-	-	3,606
33	Outside Services Employed	11,826	-	-	-	-	-	-	11,826
34	Rate Case	-	-	-	-	-	-	-	-
35	Property Insurance	-	-	-	-	-	-	-	-
36	Injuries and Damage Ins.	17,568	-	-	-	-	-	-	17,568
37	Regulatory Commission Expense	15,802	-	-	(1,472)	(4,851)	-	-	9,479
38	Miscellaneous General	5,550	-	-	-	-	-	-	5,550
39	**Administrative and General Expense**	62,843	-	-	(1,472)	(4,851)	-	-	56,520
40	Interest Expense - Customer Deposits	367	-	-	-	-	-	-	367
41	Depreciation and Amortization Expense	49,645	-	-	-	-	-	-	49,645
42	Tax Expense - Property	19,639	-	-	-	-	-	-	19,639
43	Tax Expense - Income Taxes	(30,460)	-	-	-	-	7,445	-	(23,015)
44		39,191	-	-	-	-	7,445	-	46,636
45	**Total Operating Expenses**	$ 696,345	$ -	$ (325,260)	$ (1,472)	$ (4,851)	$ 7,445	$ -	372,207
46	**Operating Margin Before Interest on L.T.- Debt**	**$ (46,968)**	$ 2,574	$ 118	$ 475	$ 4,851	$ (7,445)	$ -	(46,394)
47	***INTEREST ON LONG-TERM DEBT & OTHER DEDUCTIONS***	$ 31,112	$ -	$ -	$ -	$ -	$ -	$ (8,019)	23,093
48	***MARGINS (LOSS) AFTER INTEREST EXPENSE***	$ (78,080)	$ 2,574	$ 118	$ 475	$ 4,851	$ (7,445)	$ 8,019	$ (69,487)
49	***NON-OPERATING MARGINS***	$ 110	$ -	$ -	$ -	$ -	$ -	$ -	$ 110
50	***NET MARGINS (LOSS)***	$ (77,970)	$ 2,574	$ 118	$ 475	$ 4,851	$ (7,445)	$ 8,019	$ (69,377)

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-8

OPERATING INCOME ADJUSTMENT NO. 1 - REVENUE ANNUALIZATION

Line	Classification: Residential (250 cfh & Below)		Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Total	
1	Year end number of customers		747	747	747	747	747	747	747	747	747	747	747	747		
2	Less: Month end number of customers		740	747	746	740	740	740	729	735	734	730	740	747		
3	Number of Additional Customers	L1 - L2	7	0	1	7	7	7	18	12	13	17	7	0	96	Total Additional Billings
4	Total actual therms sold		77,497	83,124	50,043	34,476	32,183	51,718	45,921	30,785	31,811	25,644	42,952	67,982	574,136	Total Actual Therms Sold
5	Average therms per customer	L4 / L2	104.73	111.28	67.08	46.59	43.49	69.89	62.99	41.88	43.34	35.13	58.04	91.01		
6	Monthly customer charge		$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00		
7	Commodity charge[1]		$ 0.80	$ 0.80	$ 0.80	$ 0.51405	$ 0.51405	$ 0.51405	$ 0.51405	$ 0.51405	$ 0.51405	$ 0.51405	$ 0.80	$ 0.80		
8	Less: Base cost of gas		$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36	$ 0.36		
9	Margin (i.e. Non-gas) Rate	L 7 - L 8	$ 0.44	$ 0.44	$ 0.44	$ 0.15	$ 0.15	$ 0.15	$ 0.15	$ 0.15	$ 0.15	$ 0.15	$ 0.44	$ 0.44		
10	**Calculation of Additional Revenue Due to Annualization**															
11	Avg bill based on Margin (Non-gas) Rate	L6 + (L5 x L9) / L2	$ 61.08	$ 63.96	$ 44.52	$ 22.18	$ 21.70	$ 25.77	$ 24.70	$ 21.45	$ 21.68	$ 20.41	$ 40.54	$ 55.04	$ 35.25	Average Bill
12	Multiplied by: Additional Customers (from Line 3)		7	-	1	7	7	7	18	12	13	17	7	-		
13	Additional Monthly Margin (Non-gas) Revenue L3 x L9		$ 427.56	$ -	$ 44.52	$ 155.24	$ 151.90	$ 180.37	$ 444.67	$ 257.43	$ 281.79	$ 347.00	$ 283.77	$ -	**$ 2,574**	**Additional Revenue**
14	**Calculation of Additional Therms Due to Annualization**															
15	Average therms per customer (from Line 5)		104.73	111.28	67.08	46.59	43.49	69.89	62.99	41.88	43.34	35.13	58.04	91.01		
16	Multiplied by: Customer Variance (from Line 3)		7	-	1	7	7	7	18	12	13	17	7	-		
17	Additional therms sold based on annualization L3 x L5		733.08	-	67.08	326.12	304.43	489.22	1,133.85	502.61	563.41	597.19	406.30	-	**5,123**	**Additional Therms**

18 [1] Winter Commodity Charge (November through March) = $ 0.80 per therm
19 Summer Commodity Charge (April through October) = $0.51405 per therm

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-9

OPERATING INCOME ADJUSTMENT NO. 2
BASE COST OF GAS and FUEL ADJUSTOR
REVENUE AND EXPENSE

LINE NO.	DESCRIPTION		[A] Base Cost of Gas Revenue
1	**Revenues**		
2	Test Year Sales in therms (From Cooperative's revised 2004 RUS Form 7)		574,136
3	Base Cost of Gas (Col A, per Dec 64869)	$	0.360000
4	**Revenue from the Base Cost of Gas**	$	206,689
5	Plus: Fuel Adjustor Revenue (Cooperative Income Statement Adjustment A)	$	118,453
6	***Staff Adjustment to Remove Total Gas Cost from Revenue***	**$**	**325,142**
7	**Expenses**		
8	Staff Adjustment to Remove Purchased Gas Expense	**$**	**325,260**

References:
Column [A]: Testimony, DTZ

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-10

OPERATING INCOME ADJUSTMENT NO. 3 - ACC GROSS REVENUE ASSESSMENT

		[A]	[B]	[C]
LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Revenue - ACC Assessment	$ 997	$ (997)	$ -
2	Expense - ACC Assessment	$ 1,472	$ (1,472)	$ -

References:
Column A: Data request response DTZ 2-8
Column B: Testimony, DTZ
Column C: Column [A] + Column [B]

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-11

OPERATING INCOME ADJUSTMENT NO. 4 - RATE CASE EXPENSE

		[A]	[B]	[C]
LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENT	STAFF AS ADJUSTED
1	Rate Case Expense	15,802	**(4,851)**	10,951

Calculation of Staff Recommended Rate Case Exp		
Company proposed rate case expense	$	32,852
Normalization period (in years)		3
Normalized Annual Expense	$	10,951

References:
Column A: Cooperative Schedule C-2
Column B: Testimony, DTZ
Column C: Column [A] + Column [B]; DTZ 1-25

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-12

OPERATING INCOME ADJUSTMENT NO. 5 - INCOME TAX EXPENSE

		[A]	[B]	[C]
LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Income Tax Expense	$ (30,460)	**$ 7,445**	$ (23,015)

References:
Column A: Cooperative Schedules C-1 and C-2
Column B: Testimony, DTZ
Column C: Column [A] + Column [B]

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-13

OPERATING INCOME ADJUSTMENT NO. 6 - INTEREST EXPENSE ON LONG-TERM DEBT

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	Interest Expense on Existing Long-Term Debt	$ 14,973	$ (886)	$ 14,087
2	Interest Expense on Proposed Long-Term Debt	$ 16,139	$ (7,133)	$ 9,006
3	Total Interest Expense on Long-term Debt	$ 31,112	**$ (8,019)**	$ 23,093

Calculation of Interest Expense on Existing L.T. Debt

	31-Dec-04 Ending Balance	Variable Interest Rate	Interest Expense
Note 1	$ 60,412	2.725%	$ 1,646
Note 2	$ 115,962	2.725%	$ 3,160
Note 3	$ 340,584	2.725%	$ 9,281
	$ 516,958		**$ 14,087**

	Loan Amount	Variable Interest Rate	Interest Expense
Proposed Debt	$ 330,484	2.725%	**$ 9,006**

References:
Column A: Cooperative Schedules C-1 and C-2
Column B: Testimony, DTZ
Column C: Column [A] + Column [B]

Duncan Rural Services Corporation
Docket No. G-02528A-05-0314
Test Year Ended December 31, 2004

Schedule DTZ-14

Sample Cooperatives Capital Structures

	Cooperative Utilities	Debt as a percentage of total capital[1]	Equity as a percentage of total capital[1]
1	Garkane Power Association, Inc.	50%	50%
2	Navopache Electric Cooperative, Inc.	75%	25%
3	Graham County Utilities	93%	7%
4	Alaska Electric & Energy Cooperative	76%	24%
5	Cherryland Electric Cooperative	49%	51%
6	Presque Isle Electric & Gas Cooperative	62%	38%
7	Great Lakes Energy Cooperative	60%	40%
8	Midwest Energy Cooperative	63%	37%
9	Thumb Electric Cooperative	67%	33%
10	Western Farmers Electric Cooperative	90%	10%
11	Bayfield Electric Cooperative	66%	34%
	Average	68.2%	31.8%
	Duncan Rural Services Corporation[2]	142.07%	-42.07%

[1] Information based on annual reports for the year ended 2004
[2] Based on the Company's rate filing

BAHL

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
WILLIAM A. MUNDELL
Commissioner
MARC SPITZER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF DUNCAN RURAL SERVICES CORPORATION FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF THE PROPERTIES OF DUNCAN RURAL SERVICES CORPORATION DEVOTED ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA.	)	DOCKET NO. G-02528A-05-0314

DIRECT

TESTIMONY

OF

PREM K. BAHL

ELECTRIC UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER, 8 2005

TABLE OF CONTENTS

EXHIBIT 1

ACC Staff Prem Bahl's Bio

EXHIBIT 2

EXECUTIVE SUMMARY
DUNCAN RURAL SERVICES CORPORATION
DOCKET NO. G-02528A-05-0314

Staff's testimony discusses Utilities Division Staff's ("Staff") review of Duncan Rural Services Corporation ("Duncan" or "Company") Cost of Service Study ("COSS") for the rate case filed with the Arizona Corporation Commission ("Commission"), and presents the results of its analysis.

Based on its review of Duncan's COSS, Staff's conclusions and recommendations are as follows:

1. It is Staff's conclusion that Duncan performed the COSS consistent with the methodology generally accepted in the industry, and utilized the COSS model in developing the allocation factors appropriately.

2. Staff further concludes that, based on the evaluation of Duncan's COSS model and some minor changes Staff made in Schedules G-5 through G-7, the results of COSS are satisfactory. These changes are described in detail in the main body of the testimony under Conclusions and Recommendations.

3. Staff eliminated a duplicate G Schedule and renamed several Schedules contained in the Company's filing. Staff recommends that Duncan continue to utilize the current COSS model including the modifications Staff made in the G Schedules in any future rate proceeding. These modifications include the appropriate titles according to the A.A.C. Rule R14-2-103.

4. Staff further recommends that Duncan's COSS cost allocations and factors be accepted with Staff's aforementioned modifications, which are reflected in the attached COSS G-Schedules under Exhibit 2:

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Prem K. Bahl. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. By whom and in what capacity are you employed?

A. I am employed by the Arizona Corporation Commission ("Commission") as an Electric Utilities Engineer.

Q. Please describe your educational background.

A. I graduated from South Dakota State University with a Masters degree in Electrical Engineering in May 1972. I received my Professional Engineering ("P.E.") License in the state of Arizona in 1978. My Bachelor of Science degree in Electrical Engineering is from the Agra University, India in 1957.

Q. Please describe your pertinent work experience.

A. Please see my bio, which is attached as Exhibit 1.

Q. As part of your assigned duties at the Commission, did you perform an analysis of the application that is the subject of this proceeding?

A. Yes, I did.

Q. Is your testimony herein based on that analysis?

A. Yes, it is.

Q. What is the purpose of your prefiled testimony?

A. The purpose of my testimony is to discuss Staff's review of Duncan Rural Services Corporation ("Duncan" or "Company") Cost of Service Study ("COSS") for the rate case, and present the results of this review.

II. COST OF SERVICE STUDY – REVIEW PROCESS

Q. What is the purpose of a COSS?

A. There are three steps to take in performing a COSS. They are: 1) functionalization; 2) classification; and 3) allocation. First, the COSS enables us to determine the system's cost of service by classifying the utility's costs (investments and expenses) by function, such as demand-related, commodity-related, and customer-related functions. Second, the study breaks down these costs by customer classes to reflect as closely as possible the cost causation by respective customer classes. Third, the results of the COSS provide a benchmark for the revenues needed from each customer category by appropriately allocating the revenue requirement for each customer class.

Q. Is there a standard COSS model?

A. There is no standard methodology for designing a COSS, but it is generally advisable to follow a range of alternatives to identify which allocations are more reasonable than others. For that reason, the COSS should be used as a general guide only and as one of many considerations in designing rates.

Q. What was the process Staff used in reviewing Duncan's COSS?

A. First, I reviewed the model used by Duncan in developing various allocation factors in the COSS. Second, I reviewed the Test Year ("TY 2004") rate base, revenues and expenses in the filed rate case, adjusted by Duncan's Pro Forma adjustments, and matched them

with the appropriate schedules contained in the application. Third, I incorporated the revenue allocations and operating expense adjustments of Staff witnesses, Steve Irvine and Dan Zivan, in the COSS.

Q. Did Staff conduct a separate independent COSS?

A. After studying Duncan's model, Staff decided that the best method for review would be to replicate Duncan's COSS and make the appropriate Staff revisions and adjustments. The accuracy of the COSS model was established by the fact that all the revisions and adjustments flowed through the relevant G-Schedules. Furthermore, Duncan used the same COSS model that was used and approved by the Commission in the last rate case (Docket No. G-02527A-00-0392).

Q. Did Staff make any changes in Duncan's COSS Schedules?

A. Yes. Staff made the following changes in the G Schedules.

1. Incorporated Staff's revenue and operating expense adjustments.
2. Corrected some typographical errors in the designation of allocation factors in Schedules G-5 through G-7.
3. Eliminated the duplicate Schedule G-4 ("Allocation of Rate Base") and replaced it with the "Expense Allocation to Classes" Schedule G-4, and renumbered the remaining Schedules as G-5 through G-7.
4. Relabeled the titles of Schedules G-5 through G-7 in accordance with the A.A.C. Rule R14-2-103.
5. Introduced a new allocation factor, F10, in Schedules G-6 and G-7 that was erroneously labeled as F-3.
6. Included in Schedule G-7 the missing Allocation Factor F-4 for the Weighted Customer Accounts.

Q. What was the effect of the above-noted changes in the Allocation Factors?

A. The above-noted changes in the Allocation Factors did not affect the COSS results.

III. ALLOCATION OF DISTRIBUTION MAINS

Q. What comments does Staff have regarding Duncan's allocation of Distribution Mains?

A. This account is the largest single plant account. It constitutes approximately 67 percent of Gross Distribution Plant in Service, according to Duncan's figures used in its COSS. Duncan rightly allocated one hundred percent (100%) of the cost of Distribution Mains to peak demand, as was done in the last rate case.

IV. CONCLUSIONS AND RECOMMENDATIONS

Q. Based upon your testimony, what are Staff's conclusions and recommendations regarding the COSS?

A. Based on its review of Duncan's COSS, Staff's conclusions and recommendations are as follows:

1. It is Staff's conclusion that Duncan performed the COSS consistent with the methodology generally accepted in the industry, and developed the allocation factors appropriately, except for the modifications made by Staff in terms of correcting some typographical errors in the allocation factors in schedules G-5 through G-7, and relabeling another factor in Schedules G-6 and G-7, which was erroneously designated by the Company.

2. Staff further concludes that, based on the evaluation of the COSS model utilized by Duncan, and the changes Staff made in the allocation factors mentioned under Item 4 below, the results of Duncan's COSS are reasonable.

3. Staff recommends that in any future rate proceeding, Duncan continue to utilize the current COSS model, including any appropriate revisions to the allocation factors for allocating expenditures.

4. Staff further recommends that the Commission accept Duncan's COSS cost allocations and factors with the following adjustments and modifications, which are reflected in the attached COSS G-Schedules under Exhibit 2.

   a. Include Staff's revenue allocation adjustment by class.

   b. Include Staff's operating expense adjustments to Duncan's filing.

   c. Replace Schedule G-4, which is duplicate of the "Allocation of Rate Base" Schedule G-3, with the "Expense Allocation to Classes" Schedule G-4, and renumber the remaining Schedules as G-5 through G-7.

   d. Schedules G-5 and G-6: change the Allocation Factor for Meters and House Regulators from F-5 to F-4.

   e. Schedules G-6 and G-7: relabel the Allocation Factor for Operating Expenses, under Function of Salaries and Wages, F-3, as F-10.

   f. Schedule G-7: include the missing Allocation Factor F-4 for the Weighted Customer Accounts.

Q. Does this conclude your pre-filed testimony?

A. Yes it does.

EXHIBIT 1

Duncan Rural Services Corporation
(Docket No. G-02528A-05-0314)

ACC Staff Prem Bahl's Bio

Prem Bahl's Bio

Mr. Bahl worked at the Arizona Corporation Commission from 1988 to 1998 as a Utilities Consultant, and has been re-employed at the Commission as an Electric Utilities Engineer since June 2002. During this period of over thirteen years, he has conducted engineering evaluations of utility rate cases and financing cases, including analyses of cost of service studies performed by Southwest Gas and rural electric cooperatives. His responsibilities have included review of electric utilities' generation and transmission plans, inspection of power stations, and transmission and distribution facilities. Mr. Bahl was involved with the development of retail competition in Arizona and of DesertStar, an Independent System Operator ("ISO"), later renamed as WestConnect, a Regional Transmission Operator ("RTO"). He was Chairman of the System Reliability Working Group, which evaluated the impact of competition on system reliability and recommended the establishment of the Arizona Independent System Administrator ("AZISA") as an interim organization until commercial operation of DesertStar was implemented. Since rejoining the Commission, Mr. Bahl has reviewed utilities' load curtailment plans, and coordinated with the Commission consultants to hold two workshops to report on the second Biennial Transmission Assessment ("BTA") 2002-2011, and the third BTA 2004-2013, in the state of Arizona. He is responsible for the compliance of power plant and line siting cases.

From July 1998 to August 2000, Mr. Bahl was Chief Engineer at the Residential Utility Consumer Office. During this time period, he performed many of the duties he performed at the Commission. He was involved with the Distributed Generation Work Group that looked at the impact of development of distributed generation in Arizona on system reliability, and modifications of interconnection standards currently specified by the jurisdictional utilities. Mr. Bahl was a member of the AZISA Board of Directors

from September 1999 to June 2000. He was involved in the deliberations of the Market Interface Committee of the North American Electric Reliability Council.

From July 2001 to June 2002, Mr. Bahl had his own consulting engineering firm, and was involved with deregulation of electric power industry, and formation of RTO West and the MidWest ISO.

Mr. Bahl has a Masters in Electrical Engineering from the South Dakota State University, and is a registered Professional Engineer in the state of Arizona. He has published and presented a number of technical papers at the national and international conferences regarding formation of ISOs and RTOs; transmission issues and distributed generation. In April 2005, he chaired a national conference on "Western Power Supply" in Los Angeles, California.

Prior to his employment with the Commission, Mr. Bahl was an electrical engineer with electric utilities and consulting firms in the transmission and generation planning areas for approximately twenty eight years, including ten years with the Punjab State Electricity Board ("PSEB") in India from 1960 to 1970. He was Executive Engineer at the PSEB from 1968 to 1970 prior to coming to the USA in 1970.

EXHIBIT 2

Duncan Rural Services Corporation
(Docket No. G-02527A-04-0301)

Cost of Service Study Schedules G-1 thru G-7

DUNCAN RURAL SERVICES CORPORATION
COST OF SERVICE SUMMARY - PRESENT RATES
TEST YEAR ENDED DECEMBER 31, 2004

DESCRIPTION	TOTAL	250cfh & Below	>250 & < 425 cfh	>425 & < 1k cfh
Operating Revenues	**325,812**	**300,393**	**17,421**	**7,998**
Operating Expenses:				
Purchased Gas	-	-	-	-
Distribution Expense - Operations	154,097	134,924	12,508	6,665
Distribution Expense - Maintenance	54,824	48,107	4,413	2,304
Customer Account Expense	60,129	58,455	1,509	165
Administrative & General Expense	56,520	50,520	4,490	1,510
Depreciation	49,646	44,090	3,809	1,747
Property Taxes	19,639	17,021	1,656	962
Tax Expense - Other (Income, etc.)	(23,047)	(20,601)	(1,831)	(615)
Interest Expense -Other	367	357	9	1
Total Operation Expenses	**372,175**	**332,873**	**26,563**	**12,739**
Operating Income (Loss)	**(46,363)**	**(32,480)**	**(9,142)**	**(4,741)**
Rate Base	**758,058**	**672,374**	**58,472**	**27,212**
% Return - Present Rates	**-6.12%**	**-4.83%**	**-15.63%**	**-17.42%**
Return Index	**1.00**	**0.79**	**2.56**	**2.85**

DUNCAN RURAL SERVICES CORPORATION
COST OF SERVICE SUMMARY - PROPOSED RATES
TEST YEAR ENDED DECEMBER 31, 2004

DESCRIPTION	TOTAL	250cfh & Below	>250 & < 425 cfh	>425 & < 1k cfh
Operating Revenues (1)	**477,825**	**385,400**	**78,360**	**14,065**
Operating Expenses:				
Purchased Gas	-	-	-	-
Distribution Expense - Operations	154,097	134,924	12,508	6,665
Distribution Expense - Maintenance	54,824	48,107	4,413	2,304
Customer Account Expense	60,129	58,455	1,509	165
Administrative & General Expense	56,520	50,520	4,490	1,510
Depreciation	49,646	44,090	3,809	1,747
Property Taxes	19,639	17,021	1,656	962
Tax Expense - Other (Income, etc.)	12,305	10,999	978	328
Interest Expense -Other	367	357	9	1
Total Operation Expenses	**407,524**	**364,473**	**29,372**	**13,682**
Operating Income (Loss)	**70,301**	**20,927**	**48,988**	**383**
Rate Base	**758,058**	**672,374**	**58,472**	**27,212**
% Return - Proposed Rates	**9.27%**	**3.11%**	**83.78%**	**1.41%**
Return Index	**1.00**	**0.34**	**9.03**	**0.15**

Note:

(1) Operating Revenues exclude recovery of Purchased Gas cost.

DUNCAN RURAL SERVICES CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
ALLOCATION OF RATE BASE

			CONSUMER CLASS		
DESCRIPTION	**FACTOR**	**TOTAL**	**250cfh & Below**	**50 & < 425 cfh**	**425 & < 1k cfh**
GROSS PLANT IN SERVICE:					
Demand	D-1	926,778	803,225	78,147	45,406
Commodity	CM-1	-			
Customer - Weighted	C-1	415,620	388,358	25,072	2,190
Customer - Unweighted	C-2	-			
Total		**1,342,398**	**1,191,583**	**103,219**	**47,596**
ACCUMULATED DEPRECIATION:					
Demand	D-1	395,086	342,415	33,314	19,356
Commodity	CM-1	-			
Customer - Weighted	C-1	177,178	165,557	10,688	933
Customer - Unweighted	C-2	-			
Total		**572,264**	**507,972**	**44,002**	**20,289**
NET PLANT IN SERVICE		**770,134**	**683,611**	**59,217**	**27,307**
Customer Deposits & Def. Tax:					
Demand	D-1	19,554	16,947	1,649	958
Commodity	CM-1	-			
Customer - Weighted	C-1	20,064	18,748	1,210	106
Customer - Unweighted	C-2	-			
Total		**39,618**	**35,695**	**2,859**	**1,064**
WORKING CAPITAL:					
Demand	D-1	18,839	16,327	1,589	923
Commodity	CM-1	-	-	-	-
Customer - Weighted	C-1	8,703	8,132	525	46
Customer - Unweighted	C-2	-	-	-	-
Total		**27,542**	**24,459**	**2,114**	**969**
TOTAL RATE BASE		**758,058**	**672,374**	**58,472**	**27,212**

DUNCAN RURAL SERVICES CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
EXPENSE ALLOCATION TO CLASSES OF SERVICE

			CONSUMER CLASS		
DESCRIPTION	**FACTOR**	**TOTAL**	**250cfh & Below**	**>250 & < 425 cfh**	**>425 & < 1k cfh**
REVENUES:					
Gas Sales - Adjusted		320,602	295,328	17,291	7,984
Service Charges & Other Revenues	C-2	5,210	5,065	131	14
Total (1)		**325,812**	**300,393**	**17,421**	**7,998**
OPERATING EXPENSE:					
Purchased Gas	CM-1	-	-	-	-
Distribution Expense - Operations:					
Demand	D-1	133,884	116,036	11,289	6,559
Commodity	CM-1	-			
Customer - Weighted	C-1	20,213	18,888	1,219	106
Customer - Unweighted	C-2	-			
Total		**154,097**	**134,924**	**12,508**	**6,665**
Distribution Expense - Maintenance:					
Demand	D-1	46,098	39,953	3,887	2,258
Commodity	CM-1	-			
Customer - Weighted	C-1	8,726	8,154	526	46
Customer - Unweighted	C-2	-			
Total		**54,824**	**48,107**	**4,413**	**2,304**
Customer Accounts Expense:					
Demand	D-1	-			
Commodity	CM-1	-			
Customer - Weighted	C-1	-			
Customer - Unweighted	C-2	60,129	58,455	1,509	165
Total		**60,129**	**58,455**	**1,509**	**165**
Admin. & General Expense:					
Demand	D-1	26,743	23,178	2,255	1,310
Commodity	CM-1	2,930	1,801	1,040	89
Customer - Weighted	C-1	14,794	13,824	892	78
Customer - Unweighted	C-2	12,053	11,717	303	33
Total		**56,520**	**50,520**	**4,490**	**1,510**

Note: (1) Total Revenues exclude recovery of Purchased Gas cost.

DUNCAN RURAL SERVICES CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
EXPENSE ALLOCATION TO CLASSES OF SERVICE

			CONSUMER CLASS		
DESCRIPTION	**FACTOR**	**TOTAL**	**250cfh & Below**	**>250 & < 425 cfh**	**>425 & < 1k cfh**
Depreciation:					
Demand	D-1	33,958	29,431	2,863	1,664
Commodity	CM-1	-			
Customer - Weighted	C-1	15,688	14,659	946	83
Customer - Unweighted	C-2	-			
Total		**49,646**	**44,090**	**3,809**	**1,747**
Property Taxes:					
Demand	D-1	13,433	11,642	1,133	658
Commodity	CM-1	-			
Customer - Weighted	C-1	6,206	5,379	523	304
Customer - Unweighted	C-2	-			
Total		**19,639**	**17,021**	**1,656**	**962**
ADJUSTED TY Tax Expense - Other:					
Demand	D-1	(10,905)	(9,451)	(920)	(534)
Commodity	CM-1	(1,195)	(735)	(424)	(36)
Customer - Weighted	C-1	(6,033)	(5,637)	(364)	(32)
Customer - Unweighted	C-2	(4,914)	(4,778)	(123)	(13)
Total		**(23,047)**	**(20,601)**	**(1,831)**	**(615)**
PROPOSED Tax Expense - Other:					
Demand	D-1	5,822	5,046	491	285
Commodity	CM-1	638	392	227	19
Customer - Weighted	C-1	3,221	3,010	194	17
Customer - Unweighted	C-2	2,624	2,551	66	7
Total		**12,305**	**10,999**	**978**	**328**
Interest Expense - Other:					
Demand	D-1	-			
Commodity	CM-1	-			
Customer - Weighted	C-1	-			
Customer - Unweighted	C-2	367	357	9	1
Total		**367**	**357**	**9**	**1**
TOTAL OPERATING EXPENSES		**372,175**	**332,873**	**26,563**	**12,739**
OPERATING INCOME (LOSS)		**(46,363)**	**(32,480)**	**(9,142)**	**(4,741)**
OPERATING INCOME PERCENT		**-14.23%**	**-10.81%**	**-52.47%**	**-59.28%**

DUNCAN RURAL SERVICES CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
DISTRIBUTION OF RATE BASE BY FUNCTION

DESCRIPTION	FACTOR	TOTAL	FUNCTION	SPECIFIC	DEMAND	COMMODITY	CUST. - WT	CUST.
GROSS UTILITY PLANT IN SERVICE								
Distribution Plant:								
Distribution Mains	F-3	869,079	869,079	-	869,079			
City Gates	F-3	27,130	27,130	-	27,130			
Services	F-4	191,962	191,962	-			191,962	
Meters & Regulators	F-4	209,535	209,535	-			209,535	
Total Distribution Plant	F-7	**1,297,706**	**1,297,706**	**-**	**896,209**	**-**	**401,497**	**-**
Percent		**100.00%**	**100.00%**	**0.00%**	**69.06%**	**0.00%**	**30.94%**	**0.00%**
General Plant:								
Office Furniture & Improvements		2,000	2,000		1,368		632	
Tools & Shop Equipment		22,553	22,553		15,426		7,127	
Lab Equipment		13,369	13,369		9,144		4,225	
Stores, Power, Communication & Misc. Equip.		6,769	6,769		4,630		2,139	
Total General Plant	F-7	**44,691**	**44,691**	**-**	**30,569**	**-**	**14,122**	**-**
Percent		**100.00%**	**100.00%**	**0.00%**	**68.40%**	**0.00%**	**31.60%**	**0.00%**
GROSS PLANT IN SERVICE		**1,342,397**	**1,342,397**	**-**	**926,778**	**-**	**415,619**	**-**
PERCENT		**100.00%**	**100.00%**	**0.00%**	**69.04%**	**0.00%**	**30.96%**	**0.00%**
ACCUMULATED DEPRECIATION:								
Distribution Plant	F-7	549,867	549,867	-	379,623	-	170,244	-
General Plant	F-7	22,397	22,397	-	15,463	-	6,934	-
Total Accumulated Depreciation		**572,264**	**572,264**	**-**	**395,086**	**-**	**177,178**	**-**
Customer Deposits & Deferred Taxes		**39,618**	**39,618**		**19,554**		**20,064**	
WORKING CAPITAL:								
Materials & Supplies Inventory	F-7	27,542	27,542		18,839	-	8,703	-
Prepaids	F-9	-	-		-	-	-	-
Total Working Capital		**27,542**	**27,542**	**-**	**18,839**	**-**	**8,703**	**-**
TOTAL RATE BASE		**758,057**	**758,057**		**550,531**	**-**	**267,208**	**-**

DUNCAN RURAL SERVICES CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
DISTRIBUTION OF EXPENSE BY FUNCTION

DESCRIPTION	FACTOR	TOTAL	FUNCTION	SPECIFIC	DEMAND	COMMODITY	CUST. - WT	CUST.
Purchased Gas	F-2	-	-			-		
Distribution Operating Expenses:								
Supervision & Engineering	F-3	950	950		950			
Mains & Services	F-3	110,026	110,026		110,026			
Measuring & Reg Stations	F-1	13,753	13,753		13,753			
Meters and House Regulators	F-4	20,214	20,214				20,214	
Other Operating Expenses	F-3	9,155	9,155		9,155			
Total Operating Expenses		**154,097**	**154,097**	**-**	**133,884**	**-**	**20,214**	**-**
Distribution Maint. Expenses:								
Supervision & Engineering	F-3	-	-		-			
Mains & Services	F-3	46,098	46,098		46,098			
Measuring & Reg Stations	F-1	-	-		-			
Meters and House Regulators	F-4	8,726					8,726	
Other Equipment	F-3	-	-		-			
Total Maint. Expenses		**54,824**	**46,098**	**-**	**46,098**	**-**	**8,726**	**-**
Meter Reading Expenses	F-6	25,048	25,048					25,048
Consumer Expense	F-6	30,523	30,523					30,523
Info. and Instructional Ads & Uncollectibles	F-6	4,558	4,558					4,558
Total Customer Accounts Expenses:		**60,129**	**60,129**	**-**	**-**	**-**	**-**	**60,129**
Administrative & General Exp.	F-8	56,520	53,589	2,931	26,742	2,931	14,795	12,052
Depreciation	F-7	49,645	49,645		33,957		15,688	
Property Taxes	F-7	19,639	19,639		13,433		6,206	
Taxes - Other	F-8	(23,048)	(23,048)		(10,905)	(1,195)	(6,033)	(4,915)
Interest Expense - Other	F-6	367	367					367
TOTAL OPERATING EXPENSES		**372,174**	**360,517**	**2,931**	**243,209**	**1,736**	**59,595**	**67,634**
FUNCT. OF SALARIES & WAGES								
Operating Expenses	F-10	129,955	118,242	11,713	59,121	11,713	59,121	
Maintenance Expenses	F-3	47,741	47,741		47,741			
Meter Reading & Installation	F-6	21,681	21,681					21,681
Customer Accounting	F-6	26,480	26,480					26,480
Total		**225,857**	**214,144**	**11,713**	**106,862**	**11,713**	**59,121**	**48,161**
Percent	F-8	**100.00%**	**94.81%**	**5.19%**	**47.31%**	**5.19%**	**26.18%**	**21.32%**
FUNCTION OF O&M LESS PG		372,174	360,517	2,931	243,209	1,736	59,595	67,634
Percent	F-9	**100.00%**	**96.87%**	**0.79%**	**65.35%**	**0.47%**	**16.01%**	**18.17%**

DUNCAN RURAL SERVICES CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
ALLOCATION FACTORS

FUNCTION FACTOR	DESCRIPTION	TOTAL	DEMAND	COMMODITY	WEIGHTED CUSTOMER	CUSTOMER
F-1	Demand	100.00%	100.00%			
F-2	Commodity	100.00%		100.00%		
F-3	Distribution Mains	100.00%	100.00%			
F-4	Customer Accts - Weighted	100.00%			100.00%	
F-6	Customer Accounts	100.00%				100.00%

DERIVED FUNCTION FACTOR	DESCRIPTION					
F-7	Gross Plant in Service	100.00%	68.40%		31.60%	
F-8	Salaries & Wages	100.00%	47.31%	5.19%	26.18%	21.32%
F-9	O & M Less Purchased gas	100.00%	65.35%	0.47%	16.01%	18.17%
F-10	Salaries & Wages - Oper Exp	100.00%	45.49%	9.01%	45.49%	

CLASS ALLOCATION FACTORS	DESCRIPTION	TOTAL	CUSTOMER CLASS 250cfh & Below	>250 & < 425 cfh	>425 & < 1k cfh
D-1	Winter Peak Demand	100.000%	86.669%	8.432%	4.899%
CM-1	Commodity	100.000%	61.454%	35.493%	3.053%
C-1	Customer - Weighted	100.000%	93.441%	6.032%	0.527%
C-2	Customer - Unweighted	100.000%	97.216%	2.510%	0.274%

IRVINE

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
WILLIAM A. MUNDELL
Commissioner
MARC SPITZER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF DUNCAN RURAL SERVICES CORPORATION FOR A RATE INCREASE	DOCKET NO. G-02528A-05-0314

DIRECT

TESTIMONY

OF

STEVE IRVINE

PUBLIC UTILITIES ANALYST III

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 8, 2005

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EXHIBITS

EXECUTIVE SUMMARY
DUNCAN RURAL SERVICES CORPORATION
DOCKET NO. G-02528A-05-0314

Duncan Rural Services Corporation ("Duncan") is a non-profit corporation that supplies gas service to approximately 750 customers in Greenlee County, Arizona. Duncan's current rates were approved by the Commission in Decision No. 64869 (June 5, 2002).

On April 29, 2005, Duncan submitted an application seeking adjustment to its rates. The application seeks to increase revenue from each customer class. Staff recommends a rate design that balances the goals of equal sharing of a rate increase with equal sharing of system costs. In addition to changes in rates, Staff makes other recommendations that change the rate components. Staff recommends consolidation of the Summer and Winter Commodity Charges. Staff also recommends setting the base cost of gas at $0.00. In addition to these changes, Staff makes further recommendations related to these matters.

Staff's recommended rate design would have the effect of raising the average winter bill in the 250 cfh & Below class from $92.28 to $103.44. The average summer bill in this class would rise from $29.42 to $41.72.

Staff's recommendations are as follows:

1. Staff recommends resetting the base cost of gas to zero in the first complete billing period following a decision in this matter, but not sooner than 30 days.

2. Staff recommends that Duncan create and distribute specific customer education materials to explain the resetting of the base cost of gas to zero.

3. Staff recommends that information materials describing the change to the base cost of gas be submitted to the Director of the Utilities Division for review at least two weeks prior to release.

4. Staff recommends that when implementing the zero base cost of gas Duncan calculate the adjustor rate based on the previous 12 months' average total cost of gas.

5. Staff recommends that when implementing the zero base cost of gas the existing $0.10 band should be referenced against the previous 12 months' total cost of gas rather than the previous twelve months' adjustor rate.

6. Staff recommends that Duncan's PGA balance threshold level remain at $35,000.

7. Staff recommends that Duncan continue to submit adjustor reports on a monthly basis and that that the reports be filed within 2 months of the month that the report covers.

8. Staff recommends that a Duncan Officer certify, under oath, through an affidavit attached to each adjustor report that all information provided in the adjustor report is true and accurate to the best of his or her information and belief.

9. Staff recommends consolidation of the Summer and Winter Commodity Charges into a single commodity charge that applies all year.

10. Staff recommends approval of rates as proposed in Schedule SPI-1.

11. Staff recommends approval of service charges as proposed in Schedule SPI-1.

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Steve Irvine. I am a Public Utilities Analyst III employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst.

A. In my capacity as a Public Utilities Analyst, I review monthly filings of purchased power adjustors and purchased gas adjustors. My duties also include processing of applications for rate increases, borderline agreements, tariff compliance filings, cost of capital analysis and various applications of other types.

Q. Please describe your educational background and professional experience.

A. In 1994, I graduated from Arizona State University, receiving a Bachelor of Science degree in Business Marketing. In 1997, I received a Masters degree in Public Administration from Arizona State University. I have been employed by the Commission since May of 2001. I have worked in the Utilities Division since September of 2002.

Q. What is the scope of your testimony in this case?

A. I will address Duncan Rural Services Corporation's ("Duncan", "Company", or "Cooperative") base cost of power, purchased gas adjustor ("PGA") and PGA balance, revenue allocation and rate design, and service charges. Staff witnesses Dan Zivan and Prem Bahl will provide testimony regarding other aspects of Duncan's rate application.

BASE COST OF GAS

Q. Briefly summarize how Staff determined the base cost of gas.

A. Typically the base cost of gas is determined by dividing the Cooperative's total purchased gas costs from the test year by the total therms sold in the test year. In this case, rather than using this typical method Staff recommends setting the base cost of gas to zero. By setting the base cost of gas to zero, in the future the entire cost of gas will be recovered through the adjustor mechanism.

Q. Why does Staff recommend setting the base cost of gas at zero and moving the entire cost of gas to the adjustor mechanism?

A. Staff recommends this method as it makes the cost of gas purchased by Duncan more transparent to the public. Aside from taxes and assessments, currently there are three rate components identified in Duncan's Rate Schedules I, II, and III. The first component is a fixed Monthly Service Charge. The second is a Commodity Charge which is a rate that is multiplied by each therm used. There are different Commodity Charges for winter and summer. The third component is the PGA. The PGA charge is also a rate that is multiplied by each therm used. The cost of the gas purchased for delivery to customers is recovered through a component of the Commodity Charge called the base cost of gas. It is a fixed rate that is charged per therm sold. Should the cost of gas differ from this fixed rate, the amount by which purchased gas costs differ from the base cost of gas is recovered, or alternatively returned, through the PGA. Other costs associated with the delivery of gas such as costs for metering, billing, customer service, personnel, facility costs, etc. are recovered through the Monthly Service Charge and the portion of the Commodity Charge which is not comprised of the base cost of gas. Under this framework, the cost of the gas purchased by Duncan is split between the Commodity Charge and the PGA. Currently, the monthly cost to customers for the gas purchased by

Duncan is determined by summing the base cost of gas and the costs reflected in the adjustor. Setting the base cost of gas to zero and moving gas costs entirely to the PGA consolidates purchased gas costs into a single rate component. This process will result in greater price transparency as gas costs can be readily observed in a single pricing component and will not require calculation to determine gas costs. This ability to easily understand the cost of purchased gas is increasingly more important as the cost of gas rises and becomes more volatile. This change would simplify the accounting necessary to be done in regard to the cost of gas in a rate proceeding and tracking of the PGA mechanism.

Q. Please discuss how Tables 1 and 2 shown below describe the current pricing method as it relates to Staff's proposed pricing method.

A. Table 1 includes the three pricing components mentioned above: Monthly Service Charge, Commodity Charge, and PGA. The right side of Table 1 also shows the kinds of costs included in each of the pricing components. Table 2 also shows the three pricing components and the costs proposed to be included for each of the price components, but with purchased gas costs consolidated into a single pricing component Gas costs would no longer mix with other costs in the Commodity Charge. Note that these tables exclude other charges such as taxes and surcharges.

Table 1

Current Pricing Method

Monthly Service Charge	Charges related to delivery and service
Winter and Summer Commodity Charge	Charges related to delivery and service combined with Purchased Gas charges (base cost of gas)
Purchased Gas Adjustor	Purchased Gas charges (adjustor mechanism)

Table 2

Proposed Pricing Method

Monthly Service Charge	Charges related to delivery and service
Winter and Summer Commodity Charge	Charges related to delivery and service
Purchased Gas Adjustor	Total Purchased Gas charges

Q. Are there any drawbacks to setting the base cost of gas at zero and effectively combining it with the monthly PGA rate to create a single gas cost component?

A. The only drawback Staff is aware of is that if such a change were to take place, some amount of customer confusion is likely in the short term, as is the case anytime there is a noticeable change to customer bills. However, a well-designed customer education effort to inform customers of this change will help to reduce customer confusion. Staff recommends that if the recommendation to set the base cost of gas at zero is accepted, that Duncan create and distribute specific customer education materials to explain this change.

Staff further recommends that such information materials be submitted to the Director of the Utilities Division for review at least two weeks prior to release. This will allow Staff to provide input into the informational materials. Staff also recommends resetting of the base cost of gas to zero in the first complete billing period following a decision in this matter, but not sooner than 30 days. This will allow a period of time for preparation and approval of informational materials.

Q. Will any adjustments need to be made to Duncan's current method of determining the adjustor rate to accommodate the setting of the base cost of gas to zero?

A. Yes. Currently, Duncan's monthly adjustor rate is calculated using the prior 12 months' average cost of gas. A given month's adjustor rate is determined by calculating the average of the past 12 months' gas costs and then reducing the amount by the base cost of gas. In order to allow the entire cost of gas to be reflected in the adjustor rate, Duncan will need to calculate the adjustor rate in a new manner. In the month in which Duncan resets the base cost of gas set to zero, the adjustor rate will need to be increased so that the adjustor will include costs that were previously recovered in the base cost of gas. In order to increase the adjustor rate, Duncan will need to calculate the adjustor rate based on the previous 12 months' average total cost of gas. Staff recommends that this measure be taken in order to properly shift gas cost from the base cost of gas to the adjustor mechanism.

Q. Please discuss the $0.10 band that currently sets limitations on the adjustor rate and describe any considerations that must be given to this band should the base cost be reset to zero.

A. A $0.10 band is in place that limits the extent to which a new adjustor rate can increase or decrease. The band limits any new adjustor rate to no more than $0.10 difference from

any rate in the past 12 months. In the month in which the new adjustor rate is calculated based on the preceding 12 months' average total cost of gas, the new rate may well exceed $0.10 difference from any of the preceding twelve months' adjustor rates. In order for the new adjustor rate to allow the total cost of gas to be collected through the adjustor, the existing $0.10 band should be referenced against the previous 12 months' total cost of gas rather than the previous 12 months' adjustor rate. This will likely cause a marked increase in the adjustor rate, but the increase will be offset by a proportional decrease that occurs in the commodity charges from reducing the base cost of gas to zero. In the 13th month following a decision in this matter the $0.10 band should be referenced against the prior 12 months' PGA rates as the total cost of gas will be reflected in the prior 12 months' PGA rates.

Q. Has Staff recommended setting the base cost of gas at $0.00 previously?

A. Yes. Staff has made the same recommendation recently in a rate proceeding for Southwest Gas (G-01551A-04-0876).

Q. What is Staff's recommendation for Duncan's base cost of gas?

A. Staff recommends that the base cost of gas be set at $0.00 per therm.

PURCHASED GAS ADJUSTOR AND BALANCE

Q. Has use of the PGA mechanism maintained a reasonable PGA balance?

A. Yes, in the recent past it has. Decision No. 61225 in December 1998 set a PGA balance threshold of $35,000 for Duncan. The threshold requires that Duncan either seek a surcharge or surcredit upon reaching a $35,000 balance, or alternatively seek a waiver from a surcharge or surcredit. Since January of 2003, Duncan's PGA balance has been within the $35,000 threshold. Prior to that, Duncan's December 2002 balance was

$38,990 in overcollection. On September 30, 2005, Duncan filed an application for a surcharge. Duncan's ending August balance was $22,000 undercollected. While the August ending balance is within the threshold, Duncan cites in its application that it expects an undercollection of $192,000 by February of 2006 as a result of anticipated high winter costs and not having hedged gas for the winter. The surcharge application is being processed as a separate matter (Docket No. G-02528A-05-0687).

Q. Does Staff have any other recommendations regarding the PGA?

A. Yes. Decision No. 61225 ordered Duncan to file monthly PGA reports. Decision No. 61225 also ordered that monthly PGA reports be filed within 2 months of the month that the report covers. For example, the report for January 2006 should be filed by the last day of March 2006. Staff recommends that Duncan continue to submit adjustor reports on a monthly basis and that the reports be filed within 2 months after the month that the report covers.

Q. Does Staff have any other recommendations regarding the PGA?

A. Yes. Staff recommends that a Duncan Officer certify, under oath, through an affidavit attached to each adjustor report, that all information provided in the adjustor report is true and accurate to the best of his or her information and belief. Staff has made this recommendation in other rate cases. Increased accountability for PGA reports is appropriate as gas costs are rising. Staff notes that the reports are currently signed by Duncan's C.E.O., but the signature does not speak to the accuracy of the reports.

PGA THRESHOLD

Q. Has Staff given consideration to the possibility of making a change to the $35,000 threshold set in Decision No. 61225?

A. Yes.

Q. What objectives does Staff consider when evaluating the level of a bank balance threshold?

A. There are many factors to be considered in setting a threshold level. A threshold set too high may allow a company to maintain an excessive overcollection or allow an undercollection to develop to a level that later necessitates a high surcharge. A threshold set too low may require a company to file a burdensome number of surcharge or surcredit applications, or alternatively petition many waivers from such filings. In setting a threshold one must balance these and other factors.

Q. Can a company file an application for a surcredit or surcharge prior to reaching an established bank balance threshold?

A. Yes. Companies are not prohibited from filing for a surcharge or surcredit prior to reaching a balance threshold.

Q. What methods or tools might one use to evaluate the appropriateness of a bank balance threshold level?

A. When considering the severity of a given bank balance, or appropriateness of a given threshold level, Staff has relied on a formula which frames a bank balance level or threshold, in a meaningful context. Consider Company X whose threshold, or alternatively current balance level, is $67,000. The number $67,000 is meaningless to the observer until it is placed in context of the size of the utility and controlled for other

factors such as the ratio of residential customers to other customer classes. A balance of $67,000 may be small to a company such as Arizona Public Service ("APS") but large to a small cooperative. Similarly, a threshold level of $67,000 may be small to APS but large to a small cooperative. Additionally, a $67,000 bank balance or balance threshold may be large for a small cooperative whose therms are sold predominantly to residential customers, but appropriate for a cooperative whose therms are sold predominately to an industrial customer. The formula Staff has employed when considering thresholds and bank balance levels first multiplies a given bank balance level, or balance threshold level by the ratio of residential therm sales to total therm sales. This yields the portion of the balance that is attributable to the residential class. This number is then divided by the average number of residential customers yielding the ratio referred to as balance per residential customer. While portions of an existing PGA bank balance are not formally ascribed to any given customer class or customer, the balance per residential customer ratio frames a given bank balance level or balance threshold in a ratio which is intuitive to the observer. Should Company X's bank balance referenced previously as $67,000 be $2.00 per residential customer, one can reason that a $67,000 bank balance does not call for remediation through a surcharge. Furthermore, one could also reason that a threshold set at the $67,000 level may be too low. The balance per residential customer ratio also allows direct comparisons to be made between small and large companies and controls for factors such as varying customer mix.

Q. Given that Duncan's current bank balance threshold level is $35,000, what is the balance per residential customer at that level?

A. Staff calculates that at $35,000 Duncan's balance per residential customer is $31.92.

Q. How does this compare to other utilities who have established thresholds?

A. Duncan's threshold balance per residential customer is high compared to other gas utilities. Duncan's threshold per residential customer being higher than others may be a result of other utilities' customer base having grown since setting of their thresholds and Duncan's customer base having reduced somewhat in the same period of time.

Q. What threshold level does Staff recommend for Duncan?

A. Given that Duncan's customer base has remained relatively stable, Staff recommends that Duncan's PGA balance threshold level remain at $35,000.

REVENUE ALLOCATION AND RATE DESIGN

Q. Before describing Staff's proposal for Revenue Allocation and Rate Design, please discuss how Duncan's customer classes differ from other Arizona utilities.

A. Typically, the rate classes of other utilities describe the kinds of users in the rate classes. Examples of more typical rate classes are Residential, Commercial, Irrigation, and Industrial. Duncan is unusual in that each rate class is determined by the potential volume per hour of the gas service delivered. For instance, Rate Schedule 1 – 250 cfh & Below consists of customers of meter sizes of 250 cubic feet per hour and below. Customers in this rate class could be either residential or commercial customers so long as their meter size is of 250 cfh or less. For this reason, general descriptions of the customers in each class are included in Table 3 below.

Table 3

Class	**Description***	**Approximate No. of customers****
Rate Schedule 1 – 250 cfh & Below	Residential and Commercial	691 Residential 47 Commercial
Rate Schedule 2 – Above 250 cfh to 425 cfh	Irrigation and Commercial	18 Irrigation 1 Commercial
Rate Schedule 3 – Above 425 cfh to 1,000 cfh	Commercial	2 Commercial

*Descriptions of users in each category are not formal, but general descriptions of the customers.

**These figures are an approximation provided by the Company.

Q. What are Staff's underlying objectives in its recommended revenue allocation and rate design?

A. Many factors are considered and balanced when performing revenue allocation. Equalization of contribution to the system rate of return is generally an objective in revenue allocation and rate design. Staff also gave consideration to other factors such as rate shock, gradualism in change, customer class price sensitivity, historic prices, and pricing simplicity. In light of the large increases needed and the rising cost of gas, Staff gave greater consideration to equal sharing of needed price increases among customer classes than to each class's contribution to system rate of return. Had Staff's revenue allocation emphasized equalization of rate of return for each class over equal sharing of rate increase, larger changes from present to new rates would have occurred for those rate classes (Rate Schedule 1 and 3) that currently contribute less than system rate of return.

Q. How did Staff calculate the rates of return that would be contributed by each class given Staff's proposed revenue allocation?

A. To calculate rates of return contributed by each class given Staff's proposed revenue allocation, Staff used the formulas from Worksheets G1 and G2 of Staff's cost of service study. Worksheets G1 and G2 of the cost of service study calculate, among other things, rates of return on revenue and a Return Index for each rate class. To calculate rates of return given Staff's proposed revenue allocation, Staff's proposed revenue increases for each class were entered in the Operating Revenues line of Schedule G2 in Staff's cost of service study. Staff's Schedule G2, which includes Staff's proposed revenue allocation, is shown in Exhibit SPI-3.

Q. Please explain the Return Index mentioned previously.

A. The Return Index that appears in Worksheets G1 and G2 of Staff's cost of service study is a ratio that indicates whether the rate of return on revenue contributed by a given class is above, equal to, or below the system rate of return on revenue. The ratio is determined by dividing the revenue contributed by a given class by the revenue needed for that class to have a rate of return equal to that contributed by each of the other classes. A Return Index above 1.00 indicates that a class contributes more than the system rate of return. Alternatively, a Return Index below 1.00 indicates that a class contributes less than the system rate of return.

Q. Please describe Duncan's proposed revenue allocation.

A. The company has proposed equal increases in the commodity based component of rates. Currently, each of the three rate classes has a Winter Commodity Rate of $0.80 per therm. Duncan proposes that this rate increase to $1.25450 for each customer class. Each class has a Summer Commodity Rate of $0.51405 per therm. Duncan proposes that this rate

increase to $0.80580 for each customer class. Duncan has also proposed equally proportional increases to the Monthly Service Charge of each class. In total, Duncan's proposed rate design is aimed at equal sharing of the revenue increase. While equal sharing of revenues appears to be Duncan's prime consideration in rate design and revenue allocation, based on Duncan's cost of service study, Duncan's rate design also has the effect of making each class's rate of return more equal to the system rate of return.

Q. Does Staff's revenue allocation differ from Duncan's?

A. Yes. Some differences exist that result from systematic differences in rate design and the cost of service studies. First, Staff's cost of service study differs from that of Duncan resulting in differing return indices. Differences in the cost of service studies are described in the testimony of Staff witness Prem Bahl. Second, Staff is proposing that the base cost of gas be set to zero and that all future gas costs flow through the adjustor mechanism. This has the effect of changing the revenue requirements shown in the cost of service study as revenues meant to recover costs for the base cost of gas are no longer needed in the revenue requirement. For this reason, Duncan has proposed a higher revenue requirement than Staff.

Q. Please describe Staff's proposed revenue allocation.

A. Like Duncan's, Staff's revenue allocation pursues equal sharing of the costs associated with an increased revenue requirement; however, Staff does not propose exactly equal increases for each rate class. As discussed previously, these increases appear in the form of revenue reductions for each class as Staff has proposed that gas costs formerly included in each class's revenue requirements be collected through the adjustor mechanism. Staff recommends a revenue reduction for the 250 cfh & Below class of 22.94 percent, a

revenue reduction for the Above 250 cfh to 425 cfh class of 41.05 percent, and a revenue reduction for the Above 425 cfh to 1,000 cfh class of 21.55 percent.

Q. Does Staff's proposal for revenue allocation give consideration to the return indices of each of the rate classes?

A. Staff did give consideration to the return indices of each of the rate classes when determining revenue allocation. While equalization of the return indices of each of the rate classes is generally desirable, Staff's primary goal was not equalizing the return indices. As discussed previously, Duncan has filed an application seeking a $0.60 per therm surcharge in anticipation of high winter gas costs. Gas costs have not only been rising recently but have also responded to the effects of hurricane Katrina. This problem is exacerbated by Duncan's lack of gas hedging for the winter. While the Commission has not yet issued a decision on Duncan's surcharge application, rate increases to address the new revenue requirement coupled with increasing gas costs will have a significant effect on customer bills. Regardless of the Commission's decision in the surcharge application, at least some portion of higher gas costs will pass on through Duncan's PGA rolling average. In light of these new costs, efforts to reallocate revenues among classes in order to equalize contribution to revenue requirement would have the effect of further significantly increasing bills of customers in rate classes that currently contribute less than the system average rate of return. For this reason, Staff's recommended revenue allocation considers equal sharing of new costs, before considering equalization of return indices.

Q. What is the effect of Staff's recommended revenue allocation on the return indices?

A. Staff's recommended revenue allocation would decrease the Return Index of the 250 cfh & Below class from 0.74 to 0.34. While this change moves the class further away from

equal contribution to rate of return, the class will still collect revenue in excess of expenses. The Return Index of the Above 250 cfh to 425 cfh class increases from 4.12 to 9.03. The Return Index of the Above 425 cfh to 1,000 cfh class decreases from 0.61 to 0.15. One should note the current return indices referenced here are based on Staff's cost of service study rather than Duncan's. It should also be noted that while in each of these rate classes the return indices move further from equal rate of return, each rate class's rate of return remains positive. Each rate class continues to collect revenues in excess of expenses.

Q. Please describe Staff's proposed rate design generally.

A. A summary of Staff's proposed rate design is provided in Schedule SPI-1. Duncan's present rate design is based on a Monthly Service Charge and Summer and Winter Commodity Charges. Staff accepts the Cooperative's proposed Monthly Service Charges. Equivalent increases in the Monthly Service Charges were approved in Duncan Valley Electric Cooperative's first three rate classes in its most recent rate case. Duncan recommends that equal increases be made to the Summer and Winter Commodity Charges of each rate class. Staff agrees with the concept of equivalent increases to the commodity component of each rate class.

Q. Does Staff recommend any changes to the structure of Duncan's rate classes?

A. Yes. Staff recommends consolidation of the Summer and Winter Commodity Charges into a single commodity charge that applies all year. Costs recovered by the commodity charges, above the base cost of gas, do not change seasonally. There is no cost-based rationale for having different commodity charges for the summer and winter season.

Q. Please describe Staff's proposed rate design for the 250 cfh & Below class and its effect on the class.

A. Staff finds the Cooperative's proposed monthly customer charge of $20.00 to be reasonable. Staff recommends that the Commodity Charge be set at $0.52 per therm. Based on average monthly usage of 76 therms in winter, a customer in this class would pay $103.44, an increase of 12.09 percent, or $11.16. Based on average monthly usage of 20 therms in summer, a customer would pay $41.72, an increase of 41.77 percent, or $12.29. These bill calculations include the Monthly Minimum Charge, Commodity Charge, and an estimated PGA rate. Taxes, assessments, surcharges, and surcredits are not included in the calculations. While an increase of 41.77 percent appears to be a large increase, this increase occurs in summer when average bills for this class are lower than winter bills. Effects of rate changes on customer bills over a range of use levels for each of the rate classes are shown in Schedule SPI-2.

Q. Please describe Staff's proposed rate design for the Above 250 cfh to 425 cfh class and its effect on the class.

A. Staff finds the Cooperative's proposed monthly customer charge of $30.00 to be reasonable. Staff recommends that the Commodity Charge be set at $0.42 per therm. Based on average monthly usage of 262 therms in winter, a customer in this class would pay $288.99, an increase of 0.47 percent, or $1.36. Based on average monthly usage of 997 therms in summer, a customer would pay $1,014.93, an increase of 36.12 percent, or $269.33. These bill calculations include the Monthly Minimum Charge, Commodity Charge, and an estimated PGA rate. Taxes, assessments, surcharges, and surcredits are not included in the calculations. Staff would endeavor to reduce the increase to this class even further, but such efforts would further add to the large increases experiences by other classes. Proportionally, increases to this class are smaller than those of other classes as the

class already contributes more than its share of rate of return. Effects of rate changes on customer bills over a range of use levels for each of the rate classes are shown in Schedule SPI-2.

Q. Please describe Staff's proposed rate design for the Above 425 cfh to 1,000 cfh class and its effect on the class.

A. Staff finds the Cooperative's proposed monthly customer charge of $40.00 to be reasonable. Staff recommends that the Commodity Charge be set at $0.74 per therm. Based on average monthly usage of 1,430 therms in winter, a customer in this class would pay $1,915.57, an increase of 29.80 percent, or $439.84. Based on average monthly usage of 128 therms in summer, a customer would pay $207.88, an increase of 69.28 percent, or $85.08. These bill calculations include the Monthly Minimum Charge, Commodity Charge, and an estimated PGA rate. Taxes, assessments, surcharges, and surcredits are not included in the calculations. While a percentage increase of 69.28 is remarkably high, this increase occurs in summer when average bills are nearly one-tenth that of winter bills. One should also note that these summer bills are presently even smaller than either the average summer or winter bills in the Above 250 cfh to 425 cfh class. Furthermore, Staff's proposed rate design results in a decrease of the Return Index of this class and results in a significant increase in the Return Index of the Above 250 cfh to 425 cfh class. Effects of rate changes on customer bills over a range of use levels for each of the rate classes are shown in Schedule SPI-2.

SERVICE CHARGES

Q. What are Staff's recommendations regarding service charges?

A. Staff recommends that the services charges proposed by Duncan be approved. These service related charges are shown in Schedule SPI-1.

Q. Please discuss Duncan's proposal for service charges.

A. Duncan proposes that service charges remain the same with the exception of Interest Rate on Customer Deposits and Late/Deferred Payment. Duncan recommends that the interest rate on Customer Deposits be changed from 3 percent to a variable rate which is based on the Three Month Non-Financial Commercial Paper Rate ("NTMCP") as published by the Federal Reserve. While a variable interest rate is applied to deposits for some electric utilities in Arizona, all other natural gas utilities in Arizona currently have a flat interest rate of 6 percent and none currently use a variable rate. Staff recommends that Duncan's interest rate on deposits be increased from 3 percent to 6 percent in order to make it consistent with other Arizona gas utilities, but given Duncan's current financial condition the Commission could also consider maintaining the rate at its current level of 3 percent.

Q. What is Staff's recommendation regarding Late/Deferred Payment?

A. Duncan proposes that the rate for Late/Deferred Payment (per month) be changed from 0.0 percent to 1.5 percent. Staff recommends that this rate be approved. The fee would provide an incentive for timely payment and has been approved for other Arizona gas utilities.

SUMMARY OF STAFF RECOMMENDATIONS

Q. Please provide a brief summary of Staff's recommendations.

A. Staff's recommendations are as follows:

1. Staff recommends resetting the base cost of gas to zero in the first complete billing period following a decision in this matter, but not sooner than 30 days.
2. Staff recommends that Duncan create and distribute specific customer education materials to explain the resetting of the base cost of gas to zero.

3. Staff recommends that informational materials describing the change to the base cost of gas be submitted to the Director of the Utilities Division for review at least two weeks prior to release.

4. Staff recommends that when implementing the zero base cost of gas, Duncan calculate the adjustor rate based on the previous 12 months' average total cost of gas and not reduce this number by the amount of the base cost of gas as it has done in the past.

5. Staff recommends that when implementing the zero base cost of gas the existing $0.10 band should be referenced against the previous 12 months' total cost of gas.

6. Staff recommends that Duncan's PGA balance threshold level remain at $35,000.

7. Staff recommends that Duncan continue to submit adjustor reports on a monthly basis and that the reports be filed within 2 months of the month that the report covers.

8. Staff recommends that a Duncan Officer certify, under oath, through an affidavit attached to each adjustor report, that all information provided in the adjustor report is true and accurate to the best of his or her information and belief.

9. Staff recommends consolidation of the Summer and Winter Commodity Charges into a single commodity charge that applies all year.

10. Staff recommends approval of rates as shown on page 1 of Schedule SPI-1.

11. Staff recommends approval of service charges as shown on page 1 of Schedule SPI-1.

Q. Does this conclude your direct testimony?

A. Yes, it does.

RATE DESIGN

	Present rates	Company Proposed Rates	% change	Staff Proposed Rates	% change
Monthly Minimum Charge					
<250	$15.00	$20.00	33%	$20.00	33.33%
250<425	$22.50	$30.00	33%	$30.00	33.33%
425<1000	$30.00	$40.00	33%	$40.00	33.33%
Energy (Commodity) Rate - Per Therm					
<250					
winter	$0.80000	$1.25405	57%	$0.52480	-34.40%
summer	$0.51405	$0.80580	57%	$0.52480	2.09%
250<425					
winter	$0.80000	$1.25405	57%	$0.42080	-47.40%
summer	$0.51405	$0.80580	57%	$0.42080	-18.14%
425<1000					
winter	$0.80000	$1.25405	57%	$0.74480	-6.90%
summer	$0.51405	$0.80580	57%	$0.74480	44.89%
Service Related Charges					
Establishment of Service - Regular Hours	$35.00	$35.00	0.00%	$35.00	0.00%
Establishment of Service - After Hours	$50.00	$50.00	0.00%	$50.00	0.00%
Reconnect/Re-establishment of Service - Regular Hour	$50.00	$50.00	0.00%	$50.00	0.00%
Reconnect/Re-establishment of Service - After Hour	$75.00	$75.00	0.00%	$75.00	0.00%
After Hours Service Call*	$50.00	$50.00	0.00%	$50.00	0.00%
Meter Re-read (No charge for Read error)	$30.00	$30.00	0.00%	$30.00	0.00%
Meter Test Fee	$50.00	$50.00	0.00%	$50.00	0.00%
Insufficient Funds Check	$20.00	$20.00	0.00%	$20.00	0.00%
Interest on Consumer Deposits	3.00%	Variable**		6.00%	
Late/Deferred Payment (Per Month)	0.00%	1.50%		1.50%	

*One hour minimum
**Based on Three Month Non-Financial
Federal Reserve Commercial Paper Rate

TYPICAL BILL ANALYSIS
BASED ON AVERAGE THERM CONSUMPTION

Company Proposed

		Avg Therms Used Per Bill	Present Rates*	Proposed Rates	Dollar Increase	Percent Increase
250 cfh & Below	Winter	76	$92.28	$115.86	$ 23.58	25.55%
250 cfh & Below	Summer	20	$29.42	$36.03	$ 6.61	22.45%
Above 250 cfh to 425 cfh	Winter	262	$287.63	$358.87	$ 71.24	24.77%
Above 250 cfh to 425 cfh	Summer	997	$745.60	$833.64	$ 88.04	11.81%
Above 425 cfh to 1,000 cfh	Winter	1,430	$1,475.73	$1,833.29	$ 357.56	24.23%
Above 425 cfh to 1,000 cfh	Summer	128	$122.81	$143.14	$ 20.34	16.56%

Staff Proposed

		Avg Therms Used Per Bill	Present Rates*	Proposed Rates*	Dollar Increase	Percent Increase
250 cfh & Below	Winter	76	$92.28	$103.44	$11.16	12.09%
250 cfh & Below	Summer	20	$29.42	$41.72	$12.29	41.77%
Above 250 cfh to 425 cfh	Winter	262	$287.63	$288.99	$1.36	0.47%
Above 250 cfh to 425 cfh	Summer	997	$745.60	$1,014.93	$269.33	36.12%
Above 425 cfh to 1,000 cfh	Winter	1,430	$1,475.73	$1,915.57	$439.84	29.80%
Above 425 cfh to 1,000 cfh	Summer	128	$122.81	$207.88	$85.08	69.28%

*Note that Staff has proposed a single annual rate. This column represents bills given average seasonal usage.

BASED ON VARIOUS THERM CONSUMPTION LEVELS
250 cfh & Below

Therm Consumption	Winter Present Rates	Company Winter Proposed Rates	% Change	Summer Present Rates	Company Summer Proposed Rates	% Change	Staff Year Proposed Rates	% Change over winter	% Change over summer
0	$ 15.00	$ 20.00	33.33%	$ 15.00	$ 20.00	33.33%	$20.00	33.33%	33.33%
25	$ 40.28	$ 51.35	27.50%	$ 33.13	$ 40.15	21.19%	$47.29	17.42%	42.76%
50	$ 65.55	$ 82.70	26.17%	$ 51.25	$ 60.29	17.63%	$74.58	13.77%	45.51%
60	$ 75.66	$ 95.24	25.88%	$ 58.50	$ 68.35	16.83%	$85.50	13.00%	46.14%
70	$ 85.77	$ 107.78	25.67%	$ 65.75	$ 76.41	16.20%	$96.41	12.41%	46.62%
75	$ 90.83	$ 114.05	25.58%	$ 69.38	$ 80.44	15.94%	$101.87	12.16%	46.83%
80	$ 95.88	$ 120.32	25.49%	$ 73.00	$ 84.46	15.70%	$107.33	11.94%	47.01%
90	$ 105.99	$ 132.86	25.36%	$ 80.25	$ 92.52	15.29%	$118.24	11.56%	47.33%
100	$ 116.10	$ 145.40	25.24%	$ 87.51	$ 100.58	14.94%	$129.16	11.25%	47.60%
125	$ 141.38	$ 176.76	25.03%	$ 105.63	$ 120.73	14.29%	$156.45	10.66%	48.11%
150	$ 166.65	$ 208.11	24.88%	$ 123.76	$ 140.87	13.83%	$183.74	10.25%	48.47%
175	$ 191.93	$ 239.46	24.77%	$ 141.88	$ 161.02	13.48%	$211.03	9.95%	48.73%
200	$ 217.20	$ 270.81	24.68%	$ 160.01	$ 181.16	13.22%	$238.32	9.72%	48.94%
250	$ 267.75	$ 333.51	24.56%	$ 196.26	$ 221.45	12.83%	$292.90	9.39%	49.24%
300	$ 318.30	$ 396.21	24.48%	$ 232.52	$ 261.74	12.57%	$347.48	9.17%	49.44%
350	$ 368.85	$ 458.92	24.42%	$ 268.77	$ 302.03	12.38%	$402.05	9.00%	49.59%
400	$ 419.40	$ 521.62	24.37%	$ 305.02	$ 342.32	12.23%	$456.63	8.88%	49.71%
450	$ 469.95	$ 584.32	24.34%	$ 341.27	$ 382.61	12.11%	$511.21	8.78%	49.80%
500	$ 520.50	$ 647.02	24.31%	$ 377.53	$ 422.90	12.02%	$565.79	8.70%	49.87%
750	$ 773.25	$ 960.54	24.22%	$ 558.79	$ 624.35	11.73%	$838.69	8.46%	50.09%
1000	$ 1,026.00	$ 1,274.05	24.18%	$ 740.05	$ 825.80	11.59%	$1,111.58	8.34%	50.20%

NOTE:

Fuel Adjustor Included in Present Rates	$0.2110
Fuel Adjustor Included in Staff Proposed Rates	$0.5668
Fuel Adjustor Included in Company Proposed Rates	$0.0000

BASED ON VARIOUS THERM CONSUMPTION LEVELS
Above 250 cfh to 425 cfh

Therm Consumption	Winter Present Rates	Company Winter Proposed Rates	% Change	Summer Present Rates	Company Summer Proposed Rates	% Change	Staff Year Proposed Rates	% Change over winter	% Change over summer
0	$ 22.50	$ 30.00	33.33%	$ 22.50	$ 30.00	33.33%	$30.00	33.33%	33.33%
25	$ 47.78	$ 61.35	28.42%	$ 40.63	$ 50.15	23.43%	$54.69	14.47%	34.62%
50	$ 73.05	$ 92.70	26.90%	$ 58.75	$ 70.29	19.64%	$79.38	8.66%	35.11%
60	$ 83.16	$ 105.24	26.55%	$ 66.00	$ 78.35	18.70%	$89.26	7.33%	35.23%
70	$ 93.27	$ 117.78	26.28%	$ 73.25	$ 86.41	17.96%	$99.13	6.28%	35.33%
75	$ 98.33	$ 124.05	26.17%	$ 76.88	$ 90.44	17.63%	$104.07	5.84%	35.37%
80	$ 103.38	$ 130.32	26.06%	$ 80.50	$ 94.46	17.34%	$109.01	5.44%	35.41%
90	$ 113.49	$ 142.86	25.88%	$ 87.75	$ 102.52	16.83%	$118.88	4.75%	35.47%
100	$ 123.60	$ 155.40	25.73%	$ 95.01	$ 110.58	16.39%	$128.76	4.17%	35.53%
125	$ 148.88	$ 186.76	25.44%	$ 113.13	$ 130.73	15.55%	$153.45	3.07%	35.64%
150	$ 174.15	$ 218.11	25.24%	$ 131.26	$ 150.87	14.94%	$178.14	2.29%	35.72%
175	$ 199.43	$ 249.46	25.09%	$ 149.38	$ 171.02	14.48%	$202.83	1.71%	35.78%
200	$ 224.70	$ 280.81	24.97%	$ 167.51	$ 191.16	14.12%	$227.52	1.25%	35.82%
250	$ 275.25	$ 343.51	24.80%	$ 203.76	$ 231.45	13.59%	$276.90	0.60%	35.89%
300	$ 325.80	$ 406.21	24.68%	$ 240.02	$ 271.74	13.22%	$326.28	0.15%	35.94%
350	$ 376.35	$ 468.92	24.60%	$ 276.27	$ 312.03	12.95%	$375.65	-0.18%	35.97%
400	$ 426.90	$ 531.62	24.53%	$ 312.52	$ 352.32	12.74%	$425.03	-0.44%	36.00%
450	$ 477.45	$ 594.32	24.48%	$ 348.77	$ 392.61	12.57%	$474.41	-0.64%	36.02%
500	$ 528.00	$ 657.02	24.44%	$ 385.03	$ 432.90	12.43%	$523.79	-0.80%	36.04%
750	$ 780.75	$ 970.54	24.31%	$ 566.29	$ 634.35	12.02%	$770.69	-1.29%	36.09%
1000	$ 1,033.50	$ 1,284.05	24.24%	$ 747.55	$ 835.80	11.81%	$1,017.58	-1.54%	36.12%
1250	$ 1,286.25	$ 1,597.56	24.20%	$ 928.81	$ 1,037.26	11.68%	$1,264.48	-1.69%	36.14%
1500	$ 1,539.00	$ 1,911.07	24.18%	$ 1,110.08	$ 1,238.71	11.59%	$1,511.38	-1.79%	36.15%
1750	$ 1,791.75	$ 2,224.59	24.16%	$ 1,291.34	$ 1,440.16	11.52%	$1,758.27	-1.87%	36.16%
2000	$ 2,044.50	$ 2,538.10	24.14%	$ 1,472.60	$ 1,641.61	11.48%	$2,005.17	-1.92%	36.17%
2500	$ 2,550.00	$ 3,165.12	24.12%	$ 1,835.13	$ 2,044.51	11.41%	$2,498.96	-2.00%	36.17%
3000	$ 3,055.50	$ 3,792.15	24.11%	$ 2,197.65	$ 2,447.41	11.37%	$2,992.75	-2.05%	36.18%
4000	$ 4,066.50	$ 5,046.20	24.09%	$ 2,922.70	$ 3,253.22	11.31%	$3,980.34	-2.12%	36.19%
5000	$ 5,077.50	$ 6,300.24	24.08%	$ 3,647.75	$ 4,059.02	11.27%	$4,967.92	-2.16%	36.19%

NOTE:

Fuel Adjustor Included in Present Rates	$0.2110
Fuel Adjustor Included in Staff Proposed Rates	$0.5668
Fuel Adjustor Included in Company Proposed Rates	$0.0000

BASED ON VARIOUS THERM CONSUMPTION LEVELS
Above 425 cfh to 1,000 cfh

Therm Consumption	Winter Present Rates	Company Winter Proposed Rates	% Change	Summer Present Rates	Company Summer Proposed Rates	% Change	Staff Year Proposed Rates	% Change over winter	% Change over summer
0	$ 30.00	$ 40.00	33.33%	$ 30.00	$ 40.00	33.33%	$40.00	33.33%	33.33%
10	$ 40.11	$ 52.54	30.99%	$ 37.25	$ 48.06	29.01%	$53.12	32.43%	42.59%
20	$ 50.22	$ 65.08	29.59%	$ 44.50	$ 56.12	26.10%	$66.23	31.88%	48.83%
50	$ 80.55	$ 102.70	27.50%	$ 66.25	$ 80.29	21.19%	$105.58	31.07%	59.36%
100	$ 131.10	$ 165.40	26.17%	$ 102.51	$ 120.58	17.63%	$171.16	30.56%	66.98%
150	$ 181.65	$ 228.11	25.58%	$ 138.76	$ 160.87	15.94%	$236.74	30.33%	70.61%
200	$ 232.20	$ 290.81	25.24%	$ 175.01	$ 201.16	14.94%	$302.32	30.20%	72.74%
250	$ 282.75	$ 353.51	25.03%	$ 211.26	$ 241.45	14.29%	$367.90	30.11%	74.14%
300	$ 333.30	$ 416.21	24.88%	$ 247.52	$ 281.74	13.83%	$433.48	30.06%	75.13%
350	$ 383.85	$ 478.92	24.77%	$ 283.77	$ 322.03	13.48%	$499.05	30.01%	75.87%
400	$ 434.40	$ 541.62	24.68%	$ 320.02	$ 362.32	13.22%	$564.63	29.98%	76.44%
450	$ 484.95	$ 604.32	24.62%	$ 356.27	$ 402.61	13.01%	$630.21	29.95%	76.89%
500	$ 535.50	$ 667.02	24.56%	$ 392.53	$ 442.90	12.83%	$695.79	29.93%	77.26%
750	$ 788.25	$ 980.54	24.39%	$ 573.79	$ 644.35	12.30%	$1,023.69	29.87%	78.41%
1000	$ 1,041.00	$ 1,294.05	24.31%	$ 755.05	$ 845.80	12.02%	$1,351.58	29.84%	79.01%
1250	$ 1,293.75	$ 1,607.56	24.26%	$ 936.31	$ 1,047.26	11.85%	$1,679.48	29.81%	79.37%
1500	$ 1,546.50	$ 1,921.07	24.22%	$ 1,117.58	$ 1,248.71	11.73%	$2,007.38	29.80%	79.62%
1750	$ 1,799.25	$ 2,234.59	24.20%	$ 1,298.84	$ 1,450.16	11.65%	$2,335.27	29.79%	79.80%
2000	$ 2,052.00	$ 2,548.10	24.18%	$ 1,480.10	$ 1,651.61	11.59%	$2,663.17	29.78%	79.93%
2500	$ 2,557.50	$ 3,175.12	24.15%	$ 1,842.63	$ 2,054.51	11.50%	$3,318.96	29.77%	80.12%
3000	$ 3,063.00	$ 3,802.15	24.13%	$ 2,205.15	$ 2,457.41	11.44%	$3,974.75	29.77%	80.25%
3500	$ 3,568.50	$ 4,429.17	24.12%	$ 2,567.68	$ 2,860.32	11.40%	$4,630.55	29.76%	80.34%
4000	$ 4,074.00	$ 5,056.20	24.11%	$ 2,930.20	$ 3,263.22	11.37%	$5,286.34	29.76%	80.41%
4500	$ 4,579.50	$ 5,683.22	24.10%	$ 3,292.73	$ 3,666.12	11.34%	$5,942.13	29.75%	80.46%
5000	$ 5,085.00	$ 6,310.24	24.10%	$ 3,655.25	$ 4,069.02	11.32%	$6,597.92	29.75%	80.51%
5500	$ 5,590.50	$ 6,937.27	24.09%	$ 4,017.78	$ 4,471.93	11.30%	$7,253.71	29.75%	80.54%
6000	$ 6,096.00	$ 7,564.29	24.09%	$ 4,380.30	$ 4,874.83	11.29%	$7,909.51	29.75%	80.57%

NOTE:

Fuel Adjustor Included in Present Rates	$0.2110
Fuel Adjustor Included in Staff Proposed Rates	$0.5668
Fuel Adjustor Included in Company Proposed Rates	$0.0000

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DUNCAN RURAL SERVICES CORPORATION
COST OF SERVICE SUMMARY - PROPOSED RATES
TEST YEAR ENDED DECEMBER 31, 2004

DESCRIPTION	TOTAL	250cfh & Below	>250 & < 425 cfh	>425 & < 1k cfh
Operating Revenues	**477,825**	**385,400**	**78,360**	**14,065**
Operating Expenses:				
Purchased Gas	-	-	-	-
Distribution Expense - Operations	154,097	134,924	12,508	6,665
Distribution Expense - Maintenance	54,824	48,107	4,413	2,304
Customer Account Expense	60,129	58,455	1,509	165
Administrative & General Expense	56,520	50,520	4,490	1,510
Depreciation	49,646	44,090	3,809	1,747
Property Taxes	19,639	17,021	1,656	962
Tax Expense - Other (Income, etc.)	12,305	10,999	978	328
Interest Expense -Other	367	357	9	1
Total Operation Expenses	**407,524**	**364,473**	**29,372**	**13,682**
Operating Income (Loss)	**70,301**	**20,927**	**48,988**	**383**
Rate Base	**758,058**	**672,374**	**58,472**	**27,212**
% Return - Proposed Rates	**9.27%**	**3.11%**	**83.78%**	**1.41%**
Return Index	**1.00**	**0.34**	**9.03**	**0.15**
Allocated Interest - Long-Term	**23,007**	**20,407**	**1,775**	**826**